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Under-Prepared College Students' Perceptions of the Impact of Technology Integration in a Developmental Reading Course

Deborah Darby
University of New Orleans

UNDER-PREPARED COLLEGE STUDENTS' PERCEPTIONS OF THE IMPACT OF TECHNOLOGY INTEGRATION IN A DEVELOPMENTAL READING COURSE

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by

Deborah W. Darby

B.A., Louisiana State University at New Orleans, 1972
M.Ed., University of New Orleans, 1987

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DEDICATION

This study is dedicated to the memory of my maternal grandparents, Mrs. Naomi Junius and Mr. Albert Junius, Sr., who reared me from a very young age. My grandparents helped to nurture my love for God and humanity, a factor that has had a profound impact on my life as an educator. This study is also dedicated to the memory of my father, Mr. Oliver Wendell White, who always loved his children and wanted the best for them. This study is also affectionately dedicated to my husband, Reverend Andrew Darby, Jr., my companion, and my friend. I thank my husband for his unwavering support and encouragement in this, and countless other endeavors. Finally, I dedicate this study to two persons who are very dear to me, my mother, Mrs. Clara L. White, and my aunt, Mrs. Josephine Green.

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ABSTRACT

Data collection included the following primary data streams: large group and small group class discussions, electronic submissions of personal reflections, answers to teacher-researcher-generated questions and questions and answers to student-generated questions posted to a Yahoo Discussion Group, a Character Analysis document using Powerpoint, and an audio-tape of a whole class discussion. Also included in the data streams was an excerpt of an audio-taped session of a whole class discussion of a segment of the novel. All of the above activities were based on the novel, Life is So Good, by George Dawson and Richard Glaubman. Data collection also included audio-tapes of interviews of the focal students.

Preliminary analysis of data streams for the focal students revealed the emergence of six themes based on participants' perceptions of the impact of technology integration in a Developmental Reading Course: participants perceived the advantages of using technology to enhance learning in, and beyond, their Developmental Reading Course; participants perceived the difficulties/disadvantages regarding the use of technology in the course; students expressed a gradual development or increase in competence and comfort with the use of technology through the course; students expressed a general preference for the use of computers rather than pen and paper in completion of course assignments; students valued their technology experience enough to express a need for extending policy throughout the University; and, students expressed increased motivation regarding completion of course assignments when using technology. Moreover, two meta-themes emerged based on a re-analysis of the data: technology motivated participants to perform in ways that they never had before; and technology engaged participants

through computer-based assignments to the extent that they exhibited characteristics associated with active learning styles. Results showed that participants generally exhibited limited participation in regular classroom discussions and activities, but exhibited active and engaged participation in completing computer-based, content-driven course assignments and activities throughout the course of the study.

CHAPTER ONE

INTRODUCTION

Statement of Thesis

In an age of ever-increasing technological advances, the impact of technology can be seen in every aspect of society. And, the field of education is no exception. Thus, the teacher-researcher contended that the challenge for educators was to seize the opportunity to use technology effectively in instructional activities in order to foster optimal student learning within and beyond the university's four walls. (For the purpose of this study, the term technology referred primarily to computers, with some additional use of peripherals). Of particular interest to this teacher-researcher was the potential benefit of technology integration within course content for many under-prepared [developmental] college students. One of the characteristics exhibited in many under-prepared students is a lack of self-confidence in their academic ability, resulting in a passive learning style (Morrison, 1999). Through a teacher-researcher study, this teacher-researcher investigated students' perceptions of the impact of technology integration in a developmental reading course.

Statement of Purpose

This study investigated the perceptions of under-prepared college students of the impact of technology integration in a Developmental Reading Course in terms of increasing their engagement and effort in the course, and thereby mediating those characteristics that many times could preclude students' academic success. One such negative characteristic is that many under-prepared students exhibit a passive learning style. According to Messick (1984), passive learners

display the following characteristics: Passive learners are: (1) less focused in attention to task, easily distracted and more likely to not complete a task; (2) less tolerant of change and new ideas; (3) passive and prefer repetitive-type tasks; (4) less experienced in critical thinking skills; (5) motivated by the expectations of others and more dependent on others for direction and help to fulfill only what is asked of them to do; (6) less likely to accept responsibility for successes or failures and blame others for their lack of success; and (7) more likely to fulfill minimum expectations for achievement.

Thus, this study examined available research studies in the areas of educational technology integration and under-prepared students' perceptions of its impact in a developmental reading course. This teacher-researcher discussed some of the characteristics of under-prepared students that hinder their academic success. Finally, based on current research, the teacher-researcher presented findings regarding students' perceptions of the impact of technology integration in their Developmental Reading Course.

Theoretical Framework of the Study

The theoretical framework of this study is based on Weiner's (1985) attribution theory of motivation. According to this theory, students attribute successes and failures to ability, task difficulty, and luck. Weiner suggested that these factors exist on three dimensions: locus of control (internal or external), stability (stable or unstable), and controllability (controllable or uncontrollable). Moreover, Weiner suggested that under-prepared students attributed their success (or failure) to forces beyond their control, such as task difficulty and/or luck. As a result, many under-prepared students adopted passive learning behaviors. An examination of these passive behaviors may provide some insight into how the attributions of under-prepared students

may impact their chances of success. Attributions have consequences for motivation and self-esteem.

Coupled with Weiner's attribution theory of motivation, the theoretical framework of this study is based on a more recent trend in motivation research, which is the use of goal theory. Goal theory examines the part that the purpose of an act or situation plays in determining motivation (Ford, 1992). Anderman and Maher (1994) contend that what learners consider the primary purpose of an act directly correlates with their level and quality of involvement. The two goals that were studied in the research on goal theory were "task-focused goals" and "ability-focused goals." Task-focused goals stress mastering a task and learning for intrinsic reasons; whereas, ability-focused goals stress demonstrating individual ability and surpassing the academic ability of other learners (Ames, 1992; Maehr & Pintrich, 1991). This teacher-researcher focused on the task-focused goals component of goal theory. Ability-focused goals exist in stark contrast to task-focused goals. In task-focused goals: 1) Success is defined as individual progress and mastery; 2) value is placed on personal effort, especially in difficult tasks; 3) reasons for effort is based on personal meaning for the activity for the individual; and, 4) errors are viewed as a part of the growing process, and not as evidence of failure or a lack of ability.

Completion of instructional activities via computers was a part of the underlying conceptual framework of this study. Researchers suggest that the use of computers in the classroom, as a tool, can enhance student learning, help to build students' confidence, and heighten students' active participation in instructional activities. Some researchers suggest the use of basic software applications, such as word processing, spreadsheets, and the internet to teach content in a myriad of subject areas (Roblyer, Edwards, & Havriluk, 1997; Keith &

Glover, 1987; Norton & Sprague, 2001; Geisert & Futrell, 2000; Collis, 1998; Hunter, 1985; Masalski, 1999). In addition, the use of computers has the flexibility to allow students to participate in creating their own knowledge base, a noted component of the constructivist theory (Halpin, 1999; Jonassen, Peck, & Wilson, (1999). Bruner (1990) contends that the basic claim of constructivism is that knowledge is "right" or "wrong" based on a learner's perspective. Moreover, Bruner (1990, p.25) suggests that rights and wrongs of this nature do not constitute absolute truths and falsehoods. Bruner also indicates that is it important for students to be aware of their own perspectives and the perspectives of others when they make their claims of "rightness and wrongness," p. 25). Moreover, Roblyer, Edwards, and Havriluk (1997) suggest that students can work together with their instructors to construct their knowledge base. Within the theory of constructivism, various software applications, if used effectively, could allow the students to have control over their learning as they investigate the content of any given subject area.

Statement of the Problem

Many under-prepared students have been traditionally characterized as having low self-esteem, learned helplessness, and a passive learning style resulting from repeated failure. As a basis for this study, Berryman (1993) defines passive learning: "Passive learning means that learners do not interact with problems and content and thus do not receive the experiential feedback so key to learning." Within the context of Weiner's (1979, 1985) attribution theory of motivation which is concerned with a search for the causes of persons' successes and failures, passive learners attribute their success or failure to external forces. They often attribute their success (or failure) to either task difficulty or luck. Moreover, Weiner suggests that such learners seldom mention their own effort as a cause for academic success or failure. And, these traits do

no simply disappear when these learners decide to enter college. Upon entering college, they bring with them those attributes that may preclude their success in college. Thus, steps must be taken to remediate those negative attributes held by some under-prepared students, and technology integration within course content may be an agent of change for these students. The potential impact of technology integration could be increased student engagement and effort in instructional activities. Moreover, as active learners, students would be more willing to address problems and course content, thus, putting themselves in a position to receive feedback, which is critical to learning. From the foregoing discussion, this teacher-researcher developed the research question for this study.

Research Question

Based on the aforementioned characteristics of many under-prepared students, in this study the teacher-researcher sought to answer the following research question:

> What are the perceptions of under-prepared college students of the impact of technology integration in a Developmental Reading Course?

Method of Investigation

This study used a qualitative research methodology within a teacher-researcher framework. The study used several intact classes of a college developmental reading course. This study employed a pre-survey regarding computer usage as a screening device only. This study employed four technology-based assignments including: 1) a Powerpoint document describing ten characters of students' choice from the novel, Life is So Good; 2) email to submit personal responses to chapters in novel; 3) a Yahoo [asynchronous] discussion group through which students posted [questions and answers] to student-generated items on particular chapters in the novel, Life is So Good; and 4) asynchronous discussions that required students to post [answer]

teacher-researcher-made review questions based on reading the assigned novel. The questions, and answers, posted by students, served as material for review for further in-class discussions and for test preparation on the novel. The electronic postings allowed students to study at times and places that were convenient for them. The above assignments required the use of technology within the context of a developmental reading course. The developmental reading course was assigned to students who did not achieve the established ACT or SAT exemption scores. Specifically, students who scored less than nineteen on the Reading section of the ACT were required to take a developmental reading course. Placement was determined at initial advisement at the University.

Need for the Study

Despite the wealth of information and research studies available regarding technology integration in grades kindergarten through twelve, few empirical research studies focus on technology integration in higher education. Moreover, even fewer empirical research studies focus on technology integration in developmental courses in higher education. Herein rests the importance of this study – to highlight the need for more intensive investigation of the impact, if any, that technology integration has on under-prepared college students' active engagement in a developmental reading course, and the effects of technology integration for under-prepared students in the remediation of those negative attributes that may preclude academic success for those under-prepared college students. The results of this study could serve as a baseline measure for future studies of the impact of technology integration in college developmental courses. Additionally, the results of this study could serve to inform practice as educators work to increase student learning.

Significance of the Study

This study focused on college under-prepared students and technology integration, an area in which there has been limited empirical research. This study would add to the body of knowledge in this area and would fill a gap in the research literature in this area.

Definitions of Terms

Educational Technology

As a basis for this study, it was necessary to offer a broad definition of educational technology. It is interesting that the attempt to define 'educational technology' is not new, for Saettler (1990) points out that "Educational Technology…can be traced back to the time when tribal priests systematized bodies of knowledge, and early cultures invented pictographs or sign writing to record and transmit information…It is clear that educational technology is essentially the product of a great historical stream consisting of trial and error, long practice and imitation, and sporadic manifestations of unusual individual creativity and persuasion." And, for many educators today, the mention of technology in education immediately brings to mind the computer equipment. (It does for me). Saettler suggests that in the view of most authors, researchers and educators, any useful definition of 'educational technology' must focus on the process of applying tools for educational purposes, as well as the tools and materials that are used. As an additional note, Eisele and Eisele (1990) discuss a 1970 report submitted to President Nixon and the U.S. Congress by the Commission on Instructional Technology, which offers, in the authors' estimation, a 'more eloquent' definition of educational technology than many other authors. Instructional Technology is defined in two ways. In its more familiar sense, it means media born of the communications revolution that can be used for instructional purposes alongside the teacher, textbook, and blackboard. Secondly, instructional technology is

defined as a systematic way of designing, carrying out, and evaluating the total process of learning and teaching in terms of specific objectives, based on research in human learning and communications, and employing a combination of human and non-human resources to bring about more effective instruction (Eisele & Eisele, 1990). And, finally, Eisele and Eisele state that as we moved into the 1990s, educators who had become involved, in the 1970s, with media, audiovisual communications, and instructional systems in directing the course of research and development in educational 'computing, began to see computers as part of a combination of technology resources, including media, instructional systems, and computer-based support systems. At that point, educational computing became known as 'educational technology (Roblyer, Edwards, & Havriluk, 1997). These authors state that the organization that represents this view of technology in education is the International Society for Technology in Education (ISTE).

Technology Integration

There is evidence (Enghagen, 1997; Kozma & Johnston, 1991) that technology integration enhances individual classes and subject areas, and that that infusion of technology acts as a "catalyst" for the qualitative enrichment of the learning experience.

As an added perspective regarding a definition of technology integration, this researcher included a compilation of definitions from several fellow practicing educators, definitions acquired through informal conversations. Addressing the question, "What is technology integration?" they respond:

"Technology Integration in the classroom is nothing new; we've had it for years. What is new is the form that technology has taken and how we, as educators, will use this resource in our

classroom. So, technology integration is using this resource in the classroom to help students learn and grow with the world." M.A.

"Seamless is the buzz word…but, I would prefer words such as incorporate, or even assimilate technology. Yes, we should assimilate technology into our lives…It should be as natural as using a pencil and paper, overhead projector, TV, VCR, etc." G.S.F.

"Technology Integration involves the incorporation of computers, and peripherals, in instructional activities…embodies new ideas, new problem-solving techniques, new communication methods, and above all, new ways of thinking about the world. It is an opportunity to use computers in education to make sweeping changes in how we facilitate student learning." D.D.

Attribution Theory of Motivation

The attribution theory of motivation is concerned with a search for the causes of one's successes and failures. Weiner (1985) indicated that students attributed successes and failures to ability, effort, task difficulty, and luck. He suggested that these factors exist on three dimensions: locus of control (internal or external), stability (stable or unstable), and controllability (controllable or uncontrollable). If the locus of control is an internal one, then success (and failure) will be attributed to either ability or effort. If the locus is external, then success (and failure) will be attributed to either task difficulty or luck. Regarding the issue of stability, expectations for future outcomes can be based on unstable causes, such as effort and/or luck, or stable causes, such as ability or task difficulty. If a student's success (or failure) is attributed to a stable factor, then he or she will expect the same from the future as from the past. But, if failure (or success) is based on an unstable factor, such as effort, then student expectations may change. The last factor is controllability. The attribution theory holds that effort is the only causal

attribute that is completely under a person's control, citing that many under-prepared students exert less effort in achieving academic success than their counterparts.

Teacher-Researcher Methodology

In the teacher-researcher methodology, the teacher-researchers often study their own classrooms with the purpose to improve "schooling" experiences for their students. This type of research generally removes the confusion over role. The teacher-researcher's role is either autobiographical, that is, centering on the teacher-researcher's own beliefs and behaviors and those of students in his class or the role is acknowledged by colleagues as an important role for the organization. This lessens potential political challenges because the knowledge gained is either knowledge to guide the teacher-researcher's own teaching or open knowledge from which the group as a whole learns and forms new direction (Glesne, 1999). Finally, in a teacher-researcher methodology, the teacher-researcher being part of the organization is vital because the research is generally a beginning stage, in a longer, change-oriented process (p. 27).

Limitations of Study

The institution in this study was a historically African-American university, a fact that could limit the generalizability to other populations. Another possible limitation of this study may have been a variation in the technological skill levels of participants that could skew the results of the study. Future studies could address the issue of variations in participants' technological skill levels. Another limitation of this study revolves around the assertion of a lack of overall effective assessments of learning processes in higher education. As a result, this researcher was not able to identify a clear point of reference for the study. The literature suggests the difficulty of empirically assessing the effectiveness of the use of technology in instructional activities. Another concern regarding the study was the lack of substantive research regarding the

disadvantages of integrating technology in instructional activities, in regular or developmental college courses. This teacher-researcher sought to find literature presenting opposing views. Except for scant references, an appreciable amount of information was not found. Another limitation of the study was that it did not take into account the "instructor" factor that could impact the study. Future studies could address the impact that the training, preparation and overall effectiveness of the instructor could have on the study. Finally, although several software applications were employed in this study, more, or different, findings and/or results might come to light if other computer software applications were used in future studies.

Summary and Overview of the Study

This study examined and reported the attitudes and perceptions of under-prepared college students' perceptions of technology integration in their Developmental Reading Course. Moreover, this study investigated what impact, if any (as reported by students), did technology integration have on their engagement and effort in course activities. This study did not address issues such as gender, race, or socioeconomic status, which were beyond the scope of this study.

CHAPTER TWO

Review of Literature

The literature review for this study focuses on a broad discussion of the use of educational technology at the K-12 level and the university level [developmental and non-developmental courses]. The review gives an overview of each of these topics as they relate to this study. In addition, the review presents some examples of the use of educational technology in instructional activities.

Focus of Research on Educational Technology

Grades Kindergarten Through Twelve

Many of the studies regarding technology integration have focused on the K-12 setting. These studies often present initiatives that have been undertaken to assist elementary school teachers and administrators in integrating technology in the curriculum. One such study by Ertmer and Hruskocy (1999) discusses the development of an effective partnership between university and elementary school personnel to facilitate the integration of technology within teachers' curricula. The partnership would also provide ongoing responsive professional, instructional, and technical support to classroom teachers. Specifically, this study examined the impact of a university-school partnership, designed to support technology integration efforts, on a) teachers' attitudes toward, and uses of, technology; b) students' confidence with technology, basic computer skills, and self-esteem; and c) the school's approach to technology

implementation, including the use of student-trainers. The results of the study indicated that there was an increase in technology use by teachers, for both professional and instructional purposes, from fall to spring. Yet the study noted that these increases did not appear to be accompanied by any related shifts in instructional approaches or processes. In general, the changes that teachers noted related to increases in comfort, confidence, and interest rather than to changes in teaching methods or classroom organization.

Several additional studies (Boxie & Maring, 2001; Halpin, 1999) discuss preparing pre-service teachers, technologically, to interact effectively with elementary school children. The study by Boxie and Maring (2001) investigates whether pre-service teachers can provide effective mentoring for elementary students when the mentoring occurs in cyberspace (e.g. websites and e-mail). Based on quantitative indicators of student learning, the study indicated that the cyber-mentoring (websites and e-mail) in the use of literacy strategies had a clear and impressive impact on student learning. Based on qualitative indicators of student learning indicated that cyber-mentoring efforts and literacy strategies were not simply add-ons to the curriculum; instead, they were perceived by teachers, undergraduates and students as integrated within the curriculum. The study by Halpin (1999) focuses on the question of whether computer literacy (of elementary pre-service teachers) should be taught as an isolated topic or integrated into the pre-service methods courses. The results of this study indicate that integration of computer literacy training into elementary method courses can provide future teachers with the confidence to transfer their computer skills into their classrooms based on their own exploratory experiences.

University Students in College Level (Non-Developmental) Courses

Another body of research regarding technology integration focuses on technology use by undergraduates enrolled in "regular" (non-developmental) courses. One study by Zhang and Espinoza (1998) examines the relationships among (a) computer self-efficacy, (b) attitudes toward computers, and (c) perceptions of desirability of learning computers among undergraduate students. The results of this study indicated that students' desirability of learning computer skills could be predicted by their self-recognition of the usefulness of computers and their perception of advanced level of computer technologies. Another study by Inque (1999-2001) examines the university student's preference for learning by computer-assisted instruction, focusing on three questions: 1) Do significant differences exist in the preference for computer-assisted instruction (CIA) between males and female students? 2) Do significant differences exist in the preference for computer-assisted instruction between undergraduate and graduate students (academic status); and 3) Does an interaction exist between gender and academic status? Again, the focus is on prepared, as opposed to under-prepared, college students. The results of this study showed that graduate students favored CIA more than did undergraduate students, confirming the researcher's assumptions that graduate students had more experiences. From the study, Inque concluded that the option of mixing CIA and traditional lectures was the key to the success of any institution of higher learning.

Faculty Use of Technology in Higher Education

The last general body of research scantily addresses technology use by educators in higher education. One study by Groves and Zemel (2000) examines the extent to which faculty who are responsible for preparing future professionals to teach, are utilizing instructional technology in their own teaching. The results of the study indicated that faculty and graduate

teaching assistants rated their knowledge high for technologies that were supported by personal computers: word processing, e-mail, computer spreadsheets, and internet use, and they were more apt to use these technologies in their own teaching. They ranked knowledge low in technologies that used other equipment attached to computers, or specialized software, and participants were less likely to use these technologies in their own teaching. Another study by Schutte (1999) attempts to investigate the effects of face-to-face versus virtual professor-student interaction, on the test performance of students. The quantitative results of the study indicated that the virtual class scored an average of twenty percent higher than the traditional class on two exams standardized between the two groups. One last study by Grasha and Yangarber-Hicks (2000) examines the effects of instructional technology in the classroom on teaching and learning styles. Of particular interest to Grasha and Yangarber-Hicks was whether the presence of instructional technology (no one specific technology) in the classroom was associated with variations in teaching and learning styles. The results of the study suggest that the introduction of instructional technology in the classroom does affect the relationship patterns among variables related to teaching and learning.

Although this teacher-researcher highlighted several studies that focused on the use of technology by faculty in higher education, there was support for this researcher's stance that there was still an insufficient amount of research focusing on educational technology integration in higher education. Moreover, of the existing studies, the majority of those studies focused on faculty, not student, use of and comfort level with technology. Spotts and Bowman (1995) stated that because little empirical evidence existed regarding the use of instructional technologies in higher education, they designed a survey instrument for the purpose of investigating university faculty members' level of instructional technology knowledge and experience. Results of the

study (conducted at a Midwestern public university) showed that faculty had the highest levels of knowledge and experience with word processing and video and also used these most frequently. A majority of the faculty members rated technology as important to teaching, but fewer than half (696 total participants in study) predicted they would use a new technology in their teaching in the coming year. Spotts and Bowman contend that the results of their research contribute to a void in the literature about instructional technology use in higher education. Several additional authors (Ely, 1989; Snider, 1992) contend that while today's technologies of pocket calculators and desktop computers are gradually becoming more widely used in grades K-12, they have met with only limited success in colleges and universities. Spotts and Bowman (1995) further contend that although the 1990s have seen much of this new technology (such as information centers which include television, videodisc with playback/record capabilities, a personal computer, plus interconnectivity capabilities with cable and direct satellite reception), it has not yet had a pervasive influence on higher education. In one final study, Garland (1999-2000) discusses the results of a survey of computer skills of faculty and undergraduate and graduate students of the University of New Hampshire Education Department. The findings of the study indicate that the University of New Hampshire educators are more likely to use computers for research than for teaching. These foregoing studies again speak to the need of greater use of technology by faculty in higher education for instructional purposes.

Despite the limited faculty use of technology for instructional purposes in higher education, several studies (Speaker, Dermody, Knighten, Suzuki, Wan, & Parigi, 2001; Wang & Speaker 2002) suggest an increase in this area. Speaker and Wang (2002) examine the beliefs and practices of [education] faculty, in higher education, regarding technology integration in instructional activities. The purpose of the study is to determine faculty members' perceptions of

their experiences after participation in a year-long project to integrate technology in their instructional activities. Moreover, the study highlights examples of effective technology integration within course content. The project centered on training university faculty and pre-service teachers in the areas of presentation software, web design, Internet in the classroom, and video on the web (Speaker et al, 2001). Components of the training included summer institutes, one-on-one mentoring, and a number of mini-sessions. The overall findings of the study indicated that technology integration in instructional activities impacts both learners and teachers. As a result of the study, participants began to assess (re-assess) their ways of teaching and learning vis-à-vis a new "global" society.

Technology Integration and Under-prepared College Students

Need for Additional Research

Given the apparent limited use of technology in standard (non-developmental) college courses, this researcher believes that, in addition to the need of further empirical research in this area, there exists an urgent need for (evidenced by a profound gap in) empirical research in the area of technology integration in instructional activities in college developmental courses. This researcher suggests that those students entering college academically prepared for college level courses could very well matriculate with or without the infusion of technology in their courses of study. However, the infusion of technology in instructional activities in developmental courses (which are the first courses under-prepared students must take) just might be the "life-line" that many under-prepared students need to foster self-confidence in their academic ability and provide them with optimal learning experiences.

Characteristics of Underprepared Students

This section of the literature review identifies some of the characteristics of under-prepared learners (who are placed in college developmental courses), for the purpose of investigating whether technology could possibly impact student engagement in instructional activities. One study by Morrison (1999) characterizes under-prepared students in terms of Weiner's (1985) attribution theory, a part of which finds that some under-prepared students believe that they are not in control their academic success and/or failure. According to this theory, such students attribute outcomes to stable factors such as luck; they seldom mention their own effort as the cause for lack of academic success; and, they seem to accept their underachievement as normal and evidence little concern about outcomes perceived to be out of their hands. As a result, many of these students adopt a passive rather than an active learning style. Other researchers (Smith & Price, 1996) discuss the attribution theory in relation to under-prepared college students. The results of their study indicate that developmental students described themselves and their experiences in terms that also fit Weiner's attribution theory. More specifically, regarding academic pursuits, Smith and Price also found that under-prepared students believe that success and/or failure is beyond their immediate control, and attribute outcomes to stable factors such as task difficulty and uncontrollable factors such as luck. Smith and Price indicate that the students seldom mention their own effort as a cause for academic success or failure. Turnbull (1986) further suggests that under-prepared students may have adopted a passive learning style as a result of repeated failure, and he contends that this passive learning style may preclude students' willingness to invest the time, energy, and effort necessary to attain academic success.

Morrison (1999) examines factors related to student motivation using seventeen independent motivational scales. The Academic Confidence scale measures a student's perception of his or her ability to perform well in school, especially in testing situations. Morrison suggests that a positive self-concept is an essential component of a self-disciplined personality, and students who see themselves in a positive way can devote themselves to academic tasks with minimal anxiety about how others see them. Morrison reveals that seventy-five percent of the scores of the unprepared students in her study fell below the mean of the larger freshmen population. Morrison contends that this suggests that educators must provide students in developmental courses with opportunities for successful academic experiences. This researcher attempted to determine whether students viewed the use of technology in instructional activities as an opportunity for successful academic experiences, experiences that could assist them in adopting an active learning style. In stark contrast to students who exhibit a passive learning style, Messick (1984) asserts that students who exhibit an active learning style are: (1) self-motivated and directed for learning for the sake of learning; (2) responsible for their own successes and/or failures; (3) less affected by others' values; (4) focused in their attention to the task and not easily distracted; and (5) tolerant of new ideas and unusual approaches.

Using Computers as a Motivational Tool

As with any tool, in this case computers, it is the responsibility of the person or persons using the tool to make optimal use of it. Computers should not be viewed, in and of themselves, as the cure-all for academic endeavors. Given those facts, many studies have shown that using computers in the classroom has added excitement and increased motivation for learning (Gilliver, Randall, & Pok, 1998; Hakkarainen, Lipponen, Jarvela, & Niemivirta, 1999). However, there is also evidence that as time progresses, the interest regarding using computers

can wane, especially if learners view computers as a means to an end, i.e., a tool (McKinnon, Nolan, & Sinclair (2000). However, it is the belief of this researcher that coupled with a quality curriculum, motivation can garner the attention of students, evidenced by active student learning, resulting in the potential for greater student achievement.

General Benefits of Technology Integration in Instructional Activities

This researcher strongly believes that, at any level, learning can be fun, and that students can be encouraged to become active learners, given an environment that promotes active engagement in the learning process. And, generally addressing the subject of how educators can best use computers in making learning fun, Hentrel and Harper (1985) suggest that educators can combine fun and education, moving beyond either play or work. Since the computer can aid and add to [our] intelligence, educators can assist students in developing thinking strategies, learning strategies, creativity, adaptation to change, and communication skills. Moreover, Hentrel and Harper suggest, and this researcher agrees, that technology integration in instructional activities allows educators the opportunity to teach thinking processes through problem-solving, as well as discovery and experimentation. At any level, including at the college level, Hentrel and Harper suggest that educators can interest students, provide an environment which can motivated students, teach required concepts, demonstrate functions of the computer, provide challenges, then step aside and allow students to process on their own, using guided practice and experimentation.

Specific Benefits of Technology Integration for Underprepared Students

Regarding this section of the literature review, this researcher has encountered much difficulty in locating empirical research studies relative to benefits of technology integration

specifically addressing under-prepared college students. This researcher recognizes the apparent gap in the literature in this area.

One unpublished pilot study by Darby (2001) examines the impact of technology integration on under-prepared students' self-confidence in their academic and computer abilities within the context of a college developmental reading course. In the study, Darby (as a researcher-teacher) administered pre-treatment and post-treatment questionnaires to students designed to assess students' confidence level in using technology and in their academic ability. As a part of the treatment, students enrolled in the developmental reading course were given a content-based assignment that they were to complete using Powerpoint (a presentation software application). Students received step-by-step guided instructions for integrating Powerpoint in the assignment. Upon completion of the assignment, students were given a post-treatment questionnaire in order to assess the change, if any, in students' self-confidence in their academic and/or computer abilities. Moreover, through subsequent informal conversations, approximately ninety percent of the participants indicated they had "fun" completing the assignment. They also indicated they would use Powerpoint again on their own for other classes.

Contrary to the suggestion that computers can make learning fun, Stoll (1999) contends that the statement "Technology makes learning fun" is a lie. He contends that most learning: is not fun; takes work, discipline, commitment, from both teacher and student. "There is no shortcut to a quality education. And the payoff isn't an adrenaline rush, but a deep satisfaction arriving weeks, months, or years later. Equating learning with fun says that if you don't enjoy yourself, you're not learning." (p. 12) Stoll further contends that computers direct students away from reading, writing, and scholarship. Finally, he states that the use of computers in the

classroom numbs the questioning minds with graphical games in which quick answers and fast action take the place of understanding, and "the trivial is promoted as educational." (p. 13)

This researcher does acknowledge limitations in this study, such as, convenience sampling and the use of intact developmental classes – to name a few. However, despite the limitations of this pilot study, this researcher believes this study can serve as a starting point in examining more intensively the possibilities technology integration might hold for this population.

Examples of Technology Integration in Instructional Activities

Despite a lack of available research that supports technology in developmental courses in this literature review (in its present form), this researcher has identified literature which suggests how the use of computers has been integrated in to various curricula. And, despite the fact that this researcher has not used all of the software applications presented in this section, they are listed as further evidence supporting the use of technology in instructional activities. This sections examines word-processing, databases, spreadsheets, the Internet, use of e-mail and relay chat.

Several authors (Engahagen, 1997; Kozma & Johnston, 1991) suggest that technology enhances individual classes and subject areas, and that infusion of technology acts as a "catalyst" for the qualitative enrichment of the learning experience. A number of authors (Roblyer, Edwards, & Havriluk, 1997; Keith & Glover, 1987; Norton & Sprague, 2001; Geisert & Futrell, 2000; Collis, 1998; Hunter, 1985; Masalski, 1999) suggest use of basic software applications for instructional activities, such as, word processing, spreadsheets, and databases to teach content in various subject areas, promote computer literacy and boost students' confidence in their academic ability.

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Use of Word Processing

Roblyer, Edwards, & Havriluk (1997) believe that no other technology has had as great an impact on education as word processing. The authors suggest that not only does this tool offer a great deal of versatility and flexibility but, it is also "model free" instructional software, that is, it reflects no particular instructional approach; an instructor can use it to support any kind of directed activity or constructivist activity. Answering the query of when to use word processing in a class, the authors indicate that students can use word processing for almost any written work, regardless of content area, work that they would otherwise write by hand. Roblyer et al. also contend that word processing alone cannot improve the quality of students' writing but, it can help them make corrections more efficiently, and this can motivate them to write more and take more interest in improving their written work. This teacher-researcher believes that anything that can bring about more student interest (especially for the under-prepared student) is a "plus" in the field of education. Norton and Sprague (2001) acknowledge that research on the use of word processors in the classroom does not always support educators' enthusiasm, but some generalizations have been made. Geisert and Futrell (2000) note that when students use word processors, they tend to write more, revise more, and develop a better attitude toward the writing process.

Adding to this discussion, Bender and Bender (1996) suggest that during all phases of learning, motivation of at-risk students is an important consideration. The authors contend that computers can be used as a motivator for many under-prepared students, provided they [computers] are used effectively. Computers can be used for much more than simply "a reward" for whatever the reason. The authors suggest a motivation activity that uses the assets of the computer to integrate technology into the student's curriculum, so that the student becomes aware of the benefits of this technology. This can be the most desirable reinforcement use of the computer. To shed light on this tenet, MacArthur (1994) asserts that word-processing software is a useful classroom tool that will motivate many students. MacArthur further asserts that students who have difficulty with spelling and grammar quickly learn that they can successfully use word-processing packages to produce a finished paper, often in less time than writing it by hand. Student use of word-processing applications can also allow for the ease of creation and revision of work. Bender et al. (1996) assert that word-processing software can reduce the physical requirements of writing. Moreover, with word-processing, students spend more time on composing rather than on the actual mechanics of writing. The authors suggest that this is certainly an advantage for "slower-to-write" at-risk [under-prepared] students or students who may strongly fear the writing process. And, research has shown that word-processing helps to change students' attitudes about writing, resulting in more positive attitudes toward writing and school in general (Daiute, 1986; Montague & Fonseca, 1993). Moreover, these researchers have found that the use of multi-sensory software can be useful for some under-prepared students who are easily distracted or who have short attention spans. Also, the use of graphics can help [under-prepared] students who may have difficulty with short-term or long-term memory since graphic presentations of data are easier to remember. Lastly, Jack Chambers (Jacobson, 1993), head of

the Center for Academic Technology at Florida Community College at Jacksonville, cites longstanding pedagogical claims that students tend to learn faster and retain more information the more they see, hear, and interact in the learning process, "precisely the kinds of multi-sensory involvement that technology can promote."

Use of Databases

A second computer-based tool involves the use of databases in instructional activities. Several authors present observations. Collis (1998) states that when educators use databases as an instructional strategy within the context of content learning, they are promoting the development of process skills – skills or procedures used to process information as students think through problems and make decisions. These skills include information-related tasks such as analyzing, observing, classifying, communicating, comparing and contrasting, defining, describing, evaluating, generalizing, inferring, interpreting, and extrapolating. Hunter (1985) suggests that process skills come to life when students use databases to discover commonalities and differences among groups of events or things, analyze relationships, look for trends, test and refine hypotheses, organize and share information, keep lists up to date, and arrange information in useful ways.

Use of Spreadsheets

Regarding the use of spreadsheets in instructional activities, Norton and Sprague (2001) present an interesting feature of this application. First of all, spreadsheet programs can be used at all levels of education (word processing and databases as well). Although educators tend to associate spreadsheet use with mathematics or business courses say Norton and Sprague, these authors suggest that spreadsheet programs can be used in any content area that requires the manipulation of numeric data. Finally, the authors suggest that applications such as spreadsheets

allow students to move away form the drill-and-practice software commonly used to teach mathematics and into an environment that allows them to gather, record, manipulate and display data while seeking reasonable solutions to a problem.

Use of the Internet

Several authors (Leshin, 1998; Jonassen, Peck, & Wilson, 1999) attempt to illustrate how the Internet can be used to increase [underprepared] students' confidence in their academic ability and to promote optimal student learning. Cynthia Leshin (1998) presents the Internet as a tool for teaching and learning with very practical, hands-on, "at-your-fingertips" activities ready for almost immediate use (much like a menu). Specifically, Leshin teaches thematic units in Social Studies, offering online and off-line activities that encourage an active approach to learning. Leshin purports that thematic units offer many opportunities for students to analyze information, distinguish between fact and opinion and identify cause and effect as they learn the content of selected thematic units.

Another example of using the Internet for classroom instruction is discussed by the authors Jonassen, Peck, and Wilson (1999). The authors attempt to illustrate how the Internet can facilitate engaging learners in "active, constructive, intentional, authentic and cooperative learning." These authors present Internet projects initiated by practicing educators who have used open-ended, student-directed research projects to expose their students to the Internet's vast information bank to learn about topics, generally in order to produce some original work using their new knowledge. The authors indicate that open-ended refers to the fact that students are encouraged to learn as much as they can about the topic, rather than simply to find answers to questions posed by the instructor.

This researcher offers a final note regarding the examples presented. Although the aforementioned activities are not necessarily reflective of actual instructional activities in college developmental courses, the impact of these computer-assisted activities in college developmental courses warrants attention.

Use of E-mail and Internet Relay Chat

Use of e-mail has become as common to many persons as making a telephone call. Heide and Henderson (2001) suggest that e-mail is the "hook" that gets many people started using computers, even those who have been resistant to the idea. According to the authors, e-mail has become the primary way that most persons keep up to date with both work and social commitments. In an academic arena, students and teachers can use e-mail to ask and answer questions about assignments; students can collaborate with peers; and teachers can give feedback to students.

Internet relay chat (IRC) allows for "real time" (synchronous) interaction, which can be motivating, but can also become challenging. An experienced moderator is recommended for directing and ordering incoming questions and comments. Students can use IRC to collaborate with peers on a common project; chat with teachers or peers; access information and opinions from outside the classroom; and interview an expert.

Conclusion

Based on the literature review, researchers (Weiner, 1985; Morrison, 1999; Smith & Price, 1996) agree that some under-prepared students exhibit characteristics that may preclude their confidence in their academic ability. These students attribute outcomes to stable factors such as luck; they seldom mention their own effort as the cause for lack of academic success; and, they seem to accept their underachievement as normal. Moreover, the literature indicates

that some researchers (Hentrel & Harper, 1985; Enghagen, 1997; Kozma & Johnston, 1991) concur that integrating technology in instructional activities has the potential to positively impact under-prepared students' confidence in their academic ability. Other authors (Robyler, Edwards, & Havriluk, 1997; Keith & Glover, 1987; Norton & Sprague, 2001; Geisert & Futrell, 2000; Collis, 1998; Hunter, 1985; Masalski, 1999) suggest, as does this researcher, use of basic software applications for instructional activities, such as word processing, spreadsheets, and databases to teach content in various subject areas, promote computer literacy, and boost students' confidence in their academic ability.

In conclusion, as a result of a review of the literature, this researcher finds a void in the number of empirical research studies in higher education regarding the impact of technology integration on student learning. This researcher finds an even greater void in the number of empirical research studies in higher education regarding the impact of technology integration on student learning for under-prepared students (students who are placed in developmental courses).

One recommendation for future study should be an examination of the impact of technology integration in developmental courses on: under-prepared students' self-confidence in their academic ability; remediation of those passive learning behaviors that many under-prepared students exhibit; and, under-prepared students' knowledge of course content. More research in this area could bring to light the "pros and cons" of integrating technology in developmental courses.

Another recommendation for future study should be an examination of other possible benefits of technology in developmental courses, such as, increased comfort levels of under-prepared students in using technology. Another question to examine might be "Can effective technology integration in such courses positively impact the grade point averages of under-

prepared students?" Yet another recommendation for future study should be an examination of the impact that the instructor has on the integration of technology in instructional activities.

Finally, within in the context of future study possibilities, there should be an examination of the potential disadvantages of technology integration in developmental courses for under-prepared students. This researcher found it extremely difficult to find plentiful information in the literature, empirical or otherwise, regarding the drawbacks of using technology in instructional activities. However, Stoll (1999) suggests general disadvantages of the use of computers in the classroom. He states that the

Although this literature review does not present conclusive [empirical] evidence that technology integration in developmental courses positively impacts under- prepared students' self-confidence in the academic ability nor the amount of effort that these students exert in their learning process, hopefully the computer-based activities presented will convince the reader that technology integration in developmental courses – though not a panacea for the educational ills of under-prepared students – can at least foster self-confidence in their academic ability, engage students more actively in their individual learning experiences, which can result in optimal student learning. And, that integration of technology within course content could be just the spark they need to propel them into even greater success.

CHAPTER THREE

Context

As this teacher-researcher study is qualitative research, it is essential to discuss the context within which this study was conducted. Qualitative research attempts to portray persons and events in as natural a setting as possible in order to ascertain a true picture of events under investigation. Kincheloe (1991) described some of the characteristics of qualitative research:

> One of the most important aspects of qualitative research is concerned with context. Human experience is shaped in particular contexts and cannot be understood if removed from these contexts. Thus, qualitative research attempts to be as naturalistic as possible, meaning that contexts must not be constructed or modified. Research must take place in the normal, everyday contexts of the subjects under study. (Kincheloe, 1991, p.144).

It is important that the teacher-researcher include information regarding the various contexts that are integral parts of the study. Information is needed regarding the students, the teacher, the perspective and influences on [her] approach to teaching, and the institutional and instructional contexts. The aforementioned aspects of the contexts are included in this section which provides discussion regarding the teacher, the teacher's observations regarding her professional development, the academic background that influences [her] approach to teaching; the instructional approach, including the school setting and course selection; the institutional context, including the teacher's approach, the curriculum overview/format; and the students who will be participants in the study.

Teacher

My experience in the field of education reflects my self-portrait as a life-long learner-teacher. From community-based tutorial and enrichment programs to formal school settings, I have had a variety of teaching and teaching-related experiences prior to proposing this study, which include eight years at a local multi-cultural, multi-ethnic community college comprised of approximately eleven thousand students. For the past four years, I have taught at a local historically black university.

Prior to a specific discussion of my teaching experience, a brief description of early literacy experiences, and the effects on my educational philosophy, is necessary. As a young child, my parents, specifically, my grandparents, adopted the philosophy that says "Train up a child in the way that he should go, and when he is old, he will not depart from it." My grandparents nurtured me physically, emotionally, economically, spiritually, and educationally. All of my needs and many of my wants were provided for. My academic background was rich with family opportunities for growth and development. Moreover, the love that I have for Storytelling today had its genesis in the fact that my grandmother consistently read to me as a child; provided many children's books for my reading pleasure; and exposed me to other cultures and environments through yearly summer vacations. And, even though my grandfather was unable to read, without the strong support that he provided for our family, I know that it would have been virtually impossible for me to have reached the "heights" in life that I have to this present day.

Another crucial aspect of my early literacy development involved [and presently involves] my active engagement in the black Baptist church. As the record of history indicates, for many African-Americans, from the era of slavery to the present, the black Baptist church

serves as the primary, and for many years, the only institution through which African-Americans had the opportunity to "learn how to read" and to obtain some semblance of an education. And, my active involvement in the black Baptist church, under the guidance of my grandparents, provided my very basic formative education. This initial education served as a solid academic foundation as I entered "formal" school. As a part of this early literacy stage, I attended Sunday School, Baptist Training Union; learned to play the piano; engaged in 'on-the-job' training as one of the musicians of the church at the age of thirteen. As a teenager, I was given assignments to "teach" the younger Sunday School children. Thus, I was encouraged by my grandparents, pastor, and staff of the church to "Study to show myself approved unto to God, rightly dividing word of truth." Thus, as I taught, I continued to grow spiritually and academically. For it has been said that as one teaches, he learns twice.

As an extension of my childhood-young adult preparation, I attended many local, regional, and national conferences and participated in public speaking forums and vocal and instrumental workshops. These areas of involvement captivated my interest and fueled my desire to acknowledge my vocation as a life-long "learner-teacher."

Building upon the foundation laid by my grand-parents, my K-12 formal educational years only added to my love for education. My grandparents, family, school administrators, and teachers demanded the best of me, and thankfully, I produced. I graduated in the top five percent at St. Paul the Apostle Elementary School, and I graduated Number Three from St. Mary's Academy High School.

As I entered College, I majored in French Liberal Arts, simply for the love of languages, as I enjoyed the study of Latin and French in high school. It was my thought to teach French someday at the university level. However, as I continued my educational pursuits, something

happened to change my life, and eventually, my chosen discipline. My grandmother, the love of my life, died. After attempting to complete the beginning stages of graduate studies in the area of French, the stress of my grandmother's death was too great at that time, so I abandoned my graduate studies at that point, but, only temporarily. I pursued several jobs in the interim; however, I eventually returned to school and received my Master's degree in the field of education. Subsequently, I worked at a local community college for eight years, and from 1999 to the present, I have been employed at a local university in New Orleans.

As I engaged in these teaching experiences, I developed a desire to enhance my personal professional development and to broaden my educational perspective. Subsequently, I entered the doctoral program in Curriculum and Instruction, with an emphasis on Educational Technology.

Looking Back: Influences on Teacher's Approach

Engaging in teacher-research in my course mandates that I reflect on the many experiences that have impacted my approach to teaching. The following experiences mark only a few of the many influences on my overall perspective on teaching and on my use of technology in the classroom and also in community programs.

Observations: Proliferation of Technology

One of the major influences on my approach to teaching has been the era of the technology explosion. Although the world has witnessed technological advances across the years, technological advances in recent years seem to have reached a pinnacle. As a result, technology now impacts all areas of society, including the field of education. Given this fact, the

effective use of technology in the classroom for optimal student learning is of the utmost importance to me. I submit that I can no longer simply rely (nor do I wish to) on the textbook and the blackboard to capture the minds and hearts of my students. Just as students use high-tech instruments on a daily basis, my approach to teaching seeks to incorporate technology into the classroom as seamlessly as it exists in the daily lives of my students.

Observations Regarding Professional Development

As it relates to my professional development, my participation in college-sponsored technology workshops, institutes, and conferences has greatly influenced my approach to teaching. I have attended numerous workshops focusing on a variety of subjects, including word-processing, multi-media presentations, e-communication, powerpoint, web design, and on-line course design. The workshops were designed to assist instructors who were interested in incorporating these technologies in their classrooms.

Another extremely valuable professional development experience that has greatly influenced my approach to teaching was my participation in the New Orleans Consortium for Technology Integration in Teacher Education (NOCTIITE) Project. My participation in the NOCTIITE project was especially beneficial to me because it allowed me an opportunity for hands-on experiences with using new and unfamiliar technologies. It has been said that, “One cannot teach what he does not know, nor can he lead where he does not go.” Thus, I welcomed the invitation to enhance my personal knowledge of technology and to learn effective ways to integrate technology in instructional activities.

In addition to hands-on activities, this project incorporated a ‘before & after’ assessment of participants’ knowledge of technology and of ways to integrate technology in instructional

activities based on the NOCTIITE initiative. Opportunities for networking with other educators and students were plentiful and fruitful.

Prior to NOCTIITE, I had some knowledge in the areas of basic operation of computers, word-processing, powerpoint, desktop publishing software, e-mail, and some digital imaging. I also had some experience with LCD projectors. As I began participation in NOCTIITE during the Summer Institute 2000, I was exposed to a wealth of knowledge, ideas, contacts, and hands-on opportunities. I was introduced to software programs, such as, Inspiration, Hyperstudio, Dreamweaver, Claris Works, Frontpage – to name a few. The opportunity to actually experiment with the DVD player, laser disc, document reader, and especially the digital camera, benefited me greatly. As one of the final components of the NOCTIITE project, I collaborated with other participants to create a project which required applying the new knowledge gained during the Institute.

In addition to honing my technological skills as a result of participation in NOCTIITE, my comfort level with technology has increased tremendously. I credit NOCTIITE for so much of the knowledge that I have gained, and, now endeavor to implement. Subsequently, my challenge is not so much to teach the 'product' of education as it is to teach [facilitate] the 'process' of education. And, I believe that the knowledge and expertise that I have acquired can help me to meet this challenge.

Observations Regarding Academic Experiences as a Graduate Student

In addition to the aforementioned professional development experiences, my academic experiences at the Master's and Doctoral level have provided the impetus for my present study. Although I had received a Bachelor of Arts Liberal Arts degree in French, there was <u>one</u> defining occurrence which propelled me to seek a Master's degree in the field of education. My husband

and I had decided to open a 'sweetshop' in the vicinity of our church. In doing so, I encountered so many children whose language and math skills were woefully limited that I decided that I wanted to do more to make a tangible impact on the lives of children. Thus, I enrolled in the Master's program in Curriculum. I had a desire to acquire the expertise needed to become an agent of positive change in the lives of all children, and especially in the lives of oppressed children. My area of concentration in the Master's program was Reading which included courses such as Developmental Reading, Diagnostic & Remedial Reading, Psychology of Reading, Special Topics in Reading, and a Reading Practicum Course. All of these courses have been of great value to me as I continue to learn and to teach. In addition to, and as a result of, broadening my personal academic pursuits, I have continued to serve in a number of school-related and community-based tutorial and enrichment programs.

However, my quest and my desire to strengthen my preparation did not end at the Master's level. I entered the doctoral program. As a doctoral student, I have been able to broaden my knowledge bases, encountering many theorists who have directly impacted my maturing philosophy of education. Moreover, the incorporation of the Educational Technology component in my doctoral studies has been of tremendous benefit to me. As I enhance my knowledge regarding the many theories regarding teaching and learning, I have been able to acquire [effective] technological competencies that I can incorporate in my classroom. The next section of this discourse will present some of the theorists who have influenced my 'developing' philosophy of education.

Observations Regarding My Philosophy of Education

As I began my doctoral journey, I knew that my interest would center on educational technology. However, I did not know exactly what would be my focus. But, I did know that I had

a certain philosophy about this concept society calls education. And, during the course of the doctoral program, I have had the opportunity to research much of the literature, and many of the theorists, in the field of education.

During this stage of my educational journey, I have studied several theorists whose tenets tend to mirror some of my beliefs regarding education and my general concern for humanity. And, as I continue to prepare to 'teach' my students, my constant focus (question) is "Will this activity/lesson/process provide students with the tools they need (want) to construct their own knowledge and to ultimately lead them to fulfilled lives?"

The three theorists who have especially inspired me in my quest are John Dewey, Paulo Friere, and Maxine Green. These particular theorists seem to suggest that teaching/learning is a vibrant, fluid experience, filled with endless possibilities for both teacher and student. In my estimation, each theorist suggests that education can 'set one free.' This idea blends very well with my desire to play a small part in uplifting humanity. The study of these theorists has helped me to "assess, fine-tune, and re-evaluate my personal philosophy as it relates to this concept called education. There are several key points that I have gleaned from these theorists that are of particular interest to me.

In his book Democracy and Education, John Dewey (1916) asserts that the aims of education should focus on providing the kind of environment that learners need to liberate and to organize their individual capacities. Dewey further contends that educators must be on their guard against ends that are alleged to be general, ultimate, and final. (A truly general aim broadens the outlook; it stimulates one to take more consequences into account). The following analogy presented by Dewey represents my self-perception as a 'facilitator' in the classroom:

> "The educator, like the farmer, has certain things to do, certain resources with which to do, and certain obstacles with which to contend. The conditions with which the farmer deals, whether as obstacles or resources, have their own structure and operation independently of any of his. Seeds sprout, rain falls, the sun shines, insects devour, blight comes, the seasons change. His aim is simply to utilize these various conditions; to make his activities and their energies work together, instead of against one another. It would be absurd if the farmer set up a purpose for farming, without any reference to these conditions of soil, climate, characteristics of plant growth, etc. His purpose is simply a foresight of the consequences of his energies connected with those of the things about him, a foresight used to direct his movements from day to day." (p.106)

So it is with the educator, Dewey says, whether parent or teacher. Just a ludicrous as it would be for the farmer to set up his own 'agenda' apart from the natural scheme of things, so, too, would it be a mistake for the educator to set up his own 'educational aims' without regard for the growth of [students]. As Dewey so succinctly has said: "Education is not something to be forced upon [students] from without, but is the growth of capacities with which human beings are endowed at birth (Johnson, 1949).

Another theorist who has influenced my philosophy of education is Paulo Freire. As stated in his book, The Pedagogy of the Oppressed (1970), Freire operates on ONE basic assumption: 'that man's ontological vocation is to be a Subject who acts upon his world, and in doing so moves toward ever new possibilities of a fuller and richer life individually and collectively" (p.12). The central problem Freire points out in his writing is "How can the oppressed, as divided, unauthentic beings, participate in developing the pedagogy of their

liberation?" (p.33) And, Freire describes the pedagogy of the oppressed as the pedagogy of men in a fight for their own liberation. And, those who recognize themselves as oppressed MUST be among the developers of this pedagogy. The pedagogy of the oppressed, according to Freire, CANNOT be developed nor practiced by the oppressors. (p.39) Freire contends that the true liberation of the oppressed not only liberates the oppressed but also the oppressor. Moreover, for this to happen, Freire suggests that there must be GENUINE and compassionate dialogue WITH the oppressed. A simple pre-packaged prescription GIVEN TO the oppressed is not enough. The two must come together and have a dialogue and work to "BECOME" as human beings. As I see it, this is an ongoing QUEST.

As it relates to the educational system, Freire suggests a model of an effective relationship between teacher and student. He replaces the "teacher-of-the-students and the students-of-the-teacher" model (Banking model of education) with the "teacher-student with students-teachers" model (Problem-posing educational model). I embrace this model because, as Freire points out, "The teacher is no longer the one who merely teaches, but one who is himself taught in dialogue with students, who in turn while being taught also teaches. They become jointly responsible for a process in which all grow." (p.67)

In my closing thoughts on Freire, I offer a quote from John Dewey that also speaks to the liberating effect of true, genuine education on the oppressed as well as on the oppressor: "It is as if no one could be educated in the full sense until everyone is developed beyond the reach of prejudice, stupidity, and apathy. (Dewey, Wit and Wisdom…,p.104).

The last in this series of theorists is Maxine Greene. Maxine Greene's themes center around what she refers to as her lifelong "Quest." Some of the themes with which she deals are:

-We can, like John Dewey, conceive of "mind as a verb rather that a noun," and can thereby open to the possibility of attentiveness, engagement, and action.

-Freedom is neither an endowment nor a commodity nor an icon; freedom is not the Statue of Liberty, the flag, or any fetish. Freedom can be thought of as a refusal of the fixed, a reaching for possibility, an engagement with obstacles and barriers and a resistant world, an achievement to be sought in a web of relationships, an inter-subjective reality.

-To be human is to be involved in a quest, a fundamental life project that is situated and undertaken as a refusal to accede to the given.

-Teaching, too, involves a sense of the possible, of seeing alternatives, of opening new landscapes (Ayers & Miller, 1998).

In her book, Releasing the Imagination, Greene asserts that she has 'partaken in the post-modern rejection of inclusive rational frameworks in which all problems, all uncertainties can be resolved.' (Greene, p.16) The best that can be done, Greene contends, is to cultivate multiple ways of seeing and multiple dialogues in a world where nothing stays the same (p.16). The last two quotes that I will cite from Greene truly reflect a vital part of my philosophy of education. They are:

-Greene (for the children):

> "Classrooms are places in which [students] should feel comfortable exploring a full range of emotions, including authentic moments of distress and pleasure. We are fully engaged as learners only when the curriculum is responsive to the material contexts of our lives.

> It is through such engagement that we realize our freedom and our humanity.

-Greene (for the teacher) – On Effectiveness:

> "If teachers come and tell me I saved their souls, I think I've failed. If a teacher comes and tells me, "You know, my kids got together and went to the principal's office and objected to the tracking that was going on," then I think, "Well, not too bad."

As I read Dewey, Freire, and Greene, they all seem (to me) to propose a genuine 'education' that liberates – the individual as well as society. And, in their own way, each suggests that there are endless possibilities for each of us to enjoy fulfilled lives. And finally, even though some of the ideas of the aforementioned theorists have greatly influenced my philosophy of education, I continue to traverse new terrains in order to truly tap the essence of my philosophy "educational 'self'."

Observations Regarding Prior Teaching Experiences

In 1991, I began my formal teaching experience as a college instructor at a local community college in New Orleans. As a full-time instructor, I taught five Developmental Reading courses. There were multiple tiers in the reading program from Basic Reading to Analytical Reading. The Analytical Reading course was a credit course. I taught both the non-credit and the credit reading courses. The proposed basic reading sequence was designed to improve reading through an integrated Language Arts (reading, speaking, listening, and writing) approach. (The textbook used for these courses was designed to teach skills in isolation). The Analytical Reading course was a college-level reading course designed to improve reading

through writing and verbal communication skills. Within the context of the course, current topics were read, discussed and analyzed. This course also included discussions and written reflections on personal and global subjects.

During my experience at the community college, I began to reflect on the format of the course. The textbook mandated for the course presented reading 'skills' in isolation. As an example, Chapter One presented drills and exercises on "Main Ideas." Subsequent chapters presented topics, such as, "Supporting Details," "Fact and Opinion," "Inferences," and others. I observed that most of the students were not actively engage in the 'learning' process. In general, students' attention seemed to wane consistently and persistently, and many students seemed to exert limited effort in the course. As I continued to reflect on the format of the course, I realized (and I think I knew all the while) that this format was not effective for the students, nor did it coincide with my philosophy of teaching. My perspective on teaching involved teaching reading holistically, providing opportunities for students to become active participants in their learning process, that is, constructing their own knowledge within the general context of the course. I began to re-evaluate my position as a facilitator or coach for students in the learning process. I began to: include a wide range of reading materials, including some materials that were of interest to students; require students to access information regarding their possible future careers; engage students in reading to younger children in an effort to plant a seed of a love for reading in their hearts at an early age; coordinate 'Storytelling Festivals' at various elementary schools to enhance the reading ability of young children [and my students] through storytelling activities. The storytelling activities created a symbiotic relationship between my students and the elementary students for whom they 'performed.' In addition to encouraging young children to read more (and to love it), students in the developmental reading course were benefited as well.

Many students experienced increased self-confidence in their reading ability and in their overall self-confidence as learners. It was a win-win situation. (I have video tapes of some of the storytelling events presented).

After eight years at the community college and a promotion to Assistant Professor, I was invited to join the faculty at a university in New Orleans. I had had no plans to leave the community college; however, after much consideration, I realized that I might be able to continue my quest to "make a positive difference" in a place that has experienced many challenges. I accepted the 'call' in the fall of 1999. The next section of this discourse will describe the context within which I am presently employed.

Another 'teaching' experience in which I was involved was the Computer-Assisted LEAP Preparation Project: Eight Grade Level. I acquired institutional and departmental permission to conduct a computer-assisted LEAP preparation project. As a pilot program, the ten participants were middle school students from Orleans Parish. The purpose of the project was an effort to increase student success rates on state-mandated high-stakes tests, with particular emphasis on the LEAP exam. The complete project, from recruitment to the final post-test, lasted approximately one month during the summer of 2002. Participants completed a computer-generated pretest of LEAP related knowledge and skills. Participants used software which contains concepts and skill requirements addressed on the LEAP exam. Participants received one-on-one assistance in the areas of reading and math. Those students who failed the LEAP exam received specific assistance in the area(s) in which they were unsuccessful. At the end of the program, participants completed a computer-generated posttest. The pre- and post- tests of the participants were used as one of the measures to determine the impact of the program. Additionally, semi-structured interviews focusing on

anecdotal responses and reactions to participation in the program, were conducted with a random sample of participants. Although the length of the pilot was relatively short, student interest, engagement, and minimal academic gains were evident.

In the forgoing discourse, I discussed my development as a teacher-learner, and the experiences that have shaped that development. In addition, I discussed the influences on, and the progression of, my love for teaching/learning as I continue to interact with students in my role as a "teacher-student with students-teachers."

The Institutional Context

The University Setting

The location for this study was Southern University at New Orleans in the Junior Division of the University. Southern University at New Orleans (SUNO) is a senior state institution of higher learning. It was founded as a branch unit of Southern University and Agricultural and Mechanical College, Baton Rouge, by Act 28 of the Extraordinary Session of the Louisiana Legislature of September 4, 1956, and began its initial year of operation on a seventeen-acre site located on the perimeter of Pontchartrain Park. The first graduation took place in May, 1963 at which time baccalaureate degrees were awarded to fifteen persons.

Each year, approximately four hundred fifty undergraduate and seventy graduate degrees are awarded. The University offers approximately four hundred different courses and services approximately four thousand students each semester. A range of basic degree programs in the liberal arts and sciences, business, education, and the technologies, and graduate degree programs in Social Work, Criminal Justice, Computer Information Systems, and Urban

Education are among the offerings. The University maintains a faculty of approximately two hundred seventy, with sixty percent of the full-time faculty holding the earned doctorate.

While SUNO has experienced tremendous growth and development in many areas in its short history, it mission has not changed significantly. The University was established primarily, but not exclusively, for the education of African American citizens of the Greater New Orleans area and the State of Louisiana in general. While the University admits and actively recruits qualified students without regard to race, color, origin, religion, age, sex, or physical handicap, it maintains its strong commitment to serve the higher education needs of the student population within the Greater New Orleans Metropolitan area. More specifically, the mission of Southern University at New Orleans is to create and maintain an environment conducive to learning and growth, to promote the upward mobility of all people by preparing them to enter into new as well as traditional careers, and to equip them to function optimally in the mainstream of the American society.

The Junior Division

The Junior Division is an academic and administrative unit housing six components of the University: Student Support Services, Upward Bound, Educational Talent Search, Disabled Students, Developmental Reading, and Counseling. The mission of Junior Division falls under two categories. The first is to prepare freshmen for the collegial experience through a comprehensive orientation and basic study skills program. The second is to provide programs that will address the students' needs holistically through educational support classes and intensive counseling services. The Division operates with the philosophy that all students have the potential to become the best that they can and the right to learn. Moreover, the purpose of the Junior Division is to plan, supervise and coordinate a program of academic and related activities

for freshmen and transfer students until they become eligible to move into their academic majors. The Division is designed to: (1) facilitate the smooth entry of students into the University; (2) enhance retention; (3) cultivate personal growth and development; and, (4) maintain collaborative relationships with the local secondary school systems.

Academic Enhancement Courses

Academic Enhancement Courses (for example, Reading, English, Mathematics) are assigned to students who do not achieve the established ACT or SAT exemption scores. Placement is determined at initial advisement at the University. Academic Enhancement courses are provided through the Junior Division Educational Programs (Developmental Education and Student Support Services). Students are placed in the programs based on a needs assessment. Each student is given a copy of the General Curriculum for freshmen at entry to the Division. Another copy is placed in the student's folder which is used as a checklist at advisement.

Regarding the general grading policy for Academic Enhancement courses, the number of hours and quality points earned in these courses cannot be used toward degree requirements. However, the hours and quality points are included in the computation of the semester grade point average. Students in these courses may earn grades of **A, B, C, F,** or **NC.** Students earning an **NC** grade are required to enroll in the course the following semester, without penalty or failure. If the student does not complete the course with a passing grade at the end of the second enrollment, a grade of **F** will be recorded.

The Course Selection

The course I have chosen for the focus of my research is Developmental Reading. I began teaching this course at SUNO in 1999. Students with ACT scores below nineteen in Reading are

placed in the Developmental Reading course. As per the course description in the syllabus, the Developmental Reading is designed to help students increase their vocabularies, improve their literal, inferential, and critical comprehension, and develop study attitudes and habits that will lead to academic success. Students complete assignments to promote maximum application of reading skills. In addition, it is desired that this course will develop within students an appreciation for reading that will encourage them to structure lifetime reading programs according to their needs and desires.

Course Content

Based on the present format of this course, at the completion of this course, it is anticipated that students will:

1. Demonstrate their abilities to use the dictionary and thesaurus to develop vocabulary and comprehension skills.
2. Demonstrate adequate vocabulary skills through the use of structural analysis and context clues.
3. Distinguish precise meaning of words through an understanding of denotative and connotative meanings.
4. Demonstrate proficiency in using locational and organizational skills when reading.
5. Appreciate reading for pleasure and self-fulfillment.

The present course content format is as follows:

Skills Cluster I: Vocabulary Skills

A. Context Clues

B. Prefixes

C. Roots

D. Suffixes

Skills Cluster II: Comprehension Skills

A. Literal Comprehension Skills

1. Main Ideas

A. Implied

B. Stated

2. Supporting Details

3. Paragraph Patterns

B. Inferential Comprehension

1. Inference

2. Conclusions

3. Predicting Outcomes

4. Judgments

5. Generalizations

6. Character Analysis

7. Author's Purpose and Point of View

8. Author's Mood, Style, and Tone

C. Critical Comprehension

1. Fact vs. Opinion

2. Propaganda

3. Persuasion

Class Procedures

Students are required to complete the assignments on vocabulary and comprehension. Study skills are integrated into the program to enhance student learning. In order to exit the course, students must demonstrate a grade proficiency level of 12.0 on the post-test in both vocabulary and comprehension and no less than 80% on semester tests.

Specific Grading Policy

The performance of students is evaluated based on the following standards:

1. Participation, assignments, and tests	90%
2. Attendance:	10%
3. Grades:	95 – 100 = A 88 - 94 = B 80 - 87 = C Below 80 = NC/F

Students who are placed in developmental courses (and, for purposes of this research, Developmental Reading) must pass with a grade of A, B, or C. In accordance with the Board of Regents' Mandate (1981), students cannot drop the course without the Dean's permission. A grade of F is to be assigned for students who demonstrate poor attendance and make little or no effort towards skill development. The "NC" grade is to be assigned for students who have good attendance and demonstrate reasonable and steady progress, but need an additional semester to meet exit requirements. Only one (1) "NC" is allowed; subsequent to that, a grade of "F" is to be assigned until the student completes the course with a passing grade. No "D" nor "I" grade is permitted. In addition, a pre-and-post test is required for all assigned students. Students must earn at least 80% on all course work and final exam to pass the course.

The Instructional Context

The Participants

The participants for this study consisted of students placed in a college developmental reading course based on their ACT scores. Students who score less than nineteen in reading on the ACT are placed in the developmental reading course. The participants in this study were first-semester freshmen in attendance at Southern University at New Orleans. Students completed a demographic survey that provided student background information to be included in the final research study report. The study consisted of one intact developmental reading class taught by the teacher-researcher for two semesters. The maximum class size was capped at twenty-five students. In spring 2003, the class consisted of eighteen students, eight males and ten females. In fall 2003, the class consisted of twenty students, five males and fifteen females. All were African-American students.

The Teacher's Approach

In my Developmental Reading course, I endeavor to teach the principles used in the reciprocal reading approach: predicting, summarizing, clarifying, and questioning. I employ a holistic approach in meeting these goals, as opposed to teaching skills in isolation. My course encompasses not only literal comprehension, but includes the integration and synthesis of information. Students develop critical thinking skills by reading a variety of materials, and reacting to readings in group discussions and individual oral presentations. Moreover, the addition of technology can afford students the opportunity to access current pieces in different academic subject areas that employ the conventions, jargon, and mode of inquiry required in specific disciplines, pieces of varying lengths, and pieces with a variety of purposes. As a result,

students can develop rhetorical fluency, vocabulary, analytical skills, and general familiarity with many fields. One final aspect of integrating technology in the course is that it has the possibility of making classes more lively for students and instructors because instructors can get students to discuss current events and attitudes with more historical contexts than traditional [skills textbook] selections.

And, as I consider my course vis-a-vis my lifelong 'calling' as an educator, one quote, in particular, truly resonates in my spirit: "To whom much is given, much is required." For as long as I can remember, it has been my desire to make a positive impact on the lives of others, especially the most needful. And, I must admit that it is not always easy. In fact, sometimes my frustration level rises to such a point that I say, "I don't just have this to do; I can let someone else do it." But, then a still small voice comes back to remind me: "If you don't, then who will?" I realize that I do not have the secret to solving life's problems, but I have an obligation to do my part. And because many of the students I 'serve,' as an educator, have experienced repeated failure, my approach to teaching is, hopefully, to provide an environment that will motivate students to become actively engaged and involved in their learning process. Thus, my approach to teaching is to provide my students with opportunities for successful academic experiences.

I believe that effective technology integration in my course can possibly play a major role in creating an environment in which students feel motivated to invest the time and effort necessary to attain academic success. In an effort to enhance the learning experiences of students, I believe that the integration of technology in instructional activities is essential. Student access to technology can be a great asset in a developmental reading (and Math and English) course. It can give students timely, high-interest material that models good writing technique, offers practice for honing reading skills, and provides new facts and ideas to which

students can respond in writing and classroom discussion. In addition, using the Internet can help students grow in cultural literacy by becoming better informed about the world in which they live and the events that affect their daily lives. Technology in the classroom can be a wonderful way to prepare students for tomorrow today. In doing so, technology has been used as an integral part of the lesson, but not the whole lesson. Technology in the reading course is used s a creative way for students explore, share, compose, and achieve success in the reading process. Students need to communicate and collaborate when learning a new technical skill. In using the Internet, students are able to access news, research topics, and communicate globally with their peers.

Even more specifically, my approach to teaching sets forth certain objectives for the developmental reading course. They are:

1. To accurately assess student basic competency level and to increase number of students properly assessed each semester;
2. To provide students with a state-of-the-art computer-assisted learning environment that is both non-stigmatizing and challenging;
3. To increase the number of students who make the transition from developmental reading courses to college level coursework; and,
4. To impact student retention and completion accurate assessment and hands-on instruction.

Curriculum Overview

During the semester, the students engage in a variety of reading activities which require that they read, discuss, and reflect on assigned materials. Students also engage in large and small groups, reading, writing, and sharing with classmates. Students also engage in individual oral

presentations relating to the reading material of the course. One of the basic sources for the reading course is the novel, Life is So Good, by George Dawson and Richard Glaubman.

As one of the ongoing semester activities, prior to each class, students: (1) *read each chapter; (2) discuss each chapter in class; and, (3) email, to the teacher-researcher, a 5-8 sentence personal response on each chapter by midnight prior to the next class meeting. (As the semester progress and students become more familiar with the process, students are required to read two chapters per class session).

Since many students in developmental reading courses are reluctant readers, I read the first chapter aloud to them, asking questions that encourage them to make predictions as to what the story will be about, what will happen next, who are the main characters and what are their roles in the story, and so on. This method can help students get a clearer understanding of the storyline. And, especially with this particular novel, there are dual levels of the story being told which could possibly confuse students. Other reasons for reading to the students are to: (1) capture/increase their interest in the novel; (2) provide an environment wherein students develop intrinsic motivation for increased engagement in learning activities; and (3) continue my love for storytelling (which my students have enjoyed in previous semesters).

The focus of the present investigation was identifying participants' perceptions of the impact of technology integration in their Developmental Reading Course through their involvement in a number of computer-based, content-driven assignments over two semesters for the study. Students also participate in whole class and small group discussions of the novel and ongoing objective tests based on the novel.

There were four major projects that the participants were required to complete during the course of the study: an assignment in which students answered teacher-researcher- generated

questions from the novel, posted to a Yahoo discussion group; participation in a Yahoo discussion group that required students to post questions to the Yahoo discussion group, and subsequently, answer student-generated questions of classmates; an email assignment in which students were required to send personal responses on novel chapters to teacher-researcher (Students also had the option to use a word processing program to construct their responses, and then either "cut and paste" their responses into the body of their email, or send their responses as an "attachment" to their email, as an alternate method of submissions in case of potential technical difficulties); and, the creation of a "Character Analysis" document in which students were required to describe selected characters from the novel, using Powerpoint. Table 1 provides a detailed description of each project. Chapter Five will include selected samples of the computer-based, content-driven assignments and activities of the eight focal students in the study. In addition to these projects, students were a part of an audio-taped class discussion of a segment of the novel. Chapter Five will also include an excerpt from the actual transcript of an audio-taped class discussion of a segment of the novel.

TABLE 1 – MAJOR ASSIGNMENTS

Assignment	Assignment Description
Assignment A	**Students Email Personal Responses**
	Teacher-researcher read aloud Chapter One of Life is So Good to students. Teacher-researcher and students discussed chapter. Students were asked to reflect on the events and characters of chapter as preparation for emailing "writing" their personal responses. The introduction to this [email] assignment took place in the Reading Computer Lab. Students were required to sign-up for a [free] Yahoo email account. Teacher-researcher gave assistance as per student need in acquiring an email account. Students typed a five-eight sentence personal reflection on Chapter One. In their personal responses, students were required to include the main idea of each chapter and their personal reactions to events and/or characters in the chapter. Each chapter response [email] was due by 12:00 midnight the day before the next class meeting. (*The same procedure was required for subsequent chapters).
Assignment B	**Students Post Answers to Teacher-Researcher –Generated Questions on Chapter One to Yahoo Discussion Group**
	Students were required to answer five teacher-researcher-generated questions from Chapter One of the novel, posted to the Yahoo discussion group. Students were required to post answers to review questions on designated date.
Assignment C	**Students Post Review Questions from Novel to Yahoo Discussion Group**
	(1) Students created [and posted] two review questions each from Chapters Six Through Ten to the Yahoo discussion group. (Students also repeated this assignment for Chapters Sixteen through Twenty). (2) Students were required to answer the questions of any TWO classmates, posted to the Yahoo discussion group. Teacher-researcher set due date for completion of assignment.
Assignment D	**Creation of "Character Analysis" Document Using Powerpoint**
	Students were required to select ten characters of their choice from the novel to describe [Character Analysis].Teacher-researcher reserved the Reading Computer Lab in order to introduce the use of Powerpoint for that assignment. The teacher-researcher reserved the lab for two subsequent whole-class sessions in order to provide assistance to students in their preparation of assignment. During Week Eleven, students made their Powerpoint presentations based on their five selected characters.

This chapter provided a description of various aspects of the institutional and instructional context of the present study—including information regarding the University, the Division, the course, the participants, and the curriculum. In addition, the teacher's approach as well as the professional and varied influences on the teacher's approach was addressed. The next chapter will provide detailed descriptions of the methodology that was employed in this study of under-prepared [college] students' perceptions of the impact of technology integration in a Developmental Reading Course.

CHAPTER FOUR

METHODOLOGY

Introduction

This study was descriptive in nature, providing qualitative data. The purpose of this study was to investigate the perceptions of under-prepared college students regarding the impact of technology integration in a developmental reading course. This study employed a qualitative research design in a teacher-researcher framework.

Teacher Research

Teacher research focuses on classroom-based investigation of phenomena that occur while the teacher teaches and the outcomes of that teaching. This investigation can span the range of academic levels, from early education to the university level. Moreover, the investigation can focus on a single student or an entire school district. Yet, the goal of teacher research is educational reform, with a bottom-to-top (practitioners-to-policy makers), rather than a top-to-bottom (policy makers-to-practitioners) model. And, despite the aforementioned disadvantages of teacher research, this researcher believes that it is the teacher, assuming the role of teacher-researcher, who can best describe and explain phenomena as they occur in the classroom and who can conduct research with the ultimate goal of informing practice – with teachers and students as key players in the process.

Teacher as Researcher

This study employed a qualitative methodology, as this methodology has become more prevalent in the social sciences. The quantitative method holds that the researcher should remain distant and independent of that being researched. In contrast, the qualitative method, researchers interact with those being studied, thus, greatly minimizing the distance between him- or herself and those being researched (Creswell, 1994).

A discussion of the teacher-researcher perspective at this point can add clarity to this research study. Since this study was concerned with participants in a naturalistic setting, their classroom, the use of a qualitative design as a part of the study was necessary. Kincheloe (1991) suggests that some of the important aspects of qualitative research are a concern with context, a holistic view of a naturalistic setting, and a careful examination of the many interactions and outlooks of those included in that setting. In order to accomplish this task, the researcher had to have an open mind, willing to discard or modify assumptions as the investigation warrants. The teacher-researcher is guided by initial concepts and guiding hypotheses, but amends them as the data are collected and analyzed. It is crucial that the teacher-researcher acquire an intimate knowledge of the learners, within the context of the study, for the only reality is that constructed by the individuals involved in the research situation (Creswell, 1994; Williams-Smith, 1996). Thus, multiple realities are possible in any given situation: the teacher-researcher, those participants being investigated, and the reader or audience interpreting a study. Therefore, the teacher-researcher needs to report faithfully these realities and to rely on voices and interpretations of informants (Creswell, p. 6).

The Researcher Perspective

As a teacher-researcher, I chose the 'participant observation' perspective, which according to Borg and Gall (1983) is normally considered the basic method of qualitative research. Moreover, the authors consider participant observation to be "well suited for the investigation of many educational problems" (p.490). The authors suggest a range of participant observation from 'complete participation where the individual becomes a full member of the group and his [her] role as an observer is withheld, to functioning basically as an observer while participating only enough to understand the group's functions and relationships. As the classroom teacher-researcher, I engaged in complete participation and designed the instructional program.

However, complete participation, according to Borg and Gall (1983) can have drawbacks, including: becoming emotionally involved and risking loss of objectivity, the problem of deception and the participants' reactions if discovered. Having taught this type of course for a number of years, and using various instructional methods in an attempt to discover what seems to be effective with students, I feel confident that I can be objective in my observations as a teacher-researcher. Regarding the problem of deception, I will not conceal my research study from students; therefore, deception and discovery are not issues.

Two additional disadvantages that Borg and Gall (1983) suggest are that: (1) complete participation will make it difficult to record observations, making it necessary to either rely on memory or try to conceal recording devices; and, (2) teacher-researchers who function as complete participant observers sometimes are unable to recall accurately all the details regarding particular incidents that occur in the classroom. Ruddell and Speaker (1985) refer to these

incidents and observations as the "instructional world." Regarding item number 1, a normal part of my course employed the use of audio-taping of different class activities, making the recording of information a seamless activity. In order to address the concern of item Number Two, I used several data streams to investigate and interpret the same events, including ongoing documentation of assignments submitted by students and the acquisition of student feedback regarding assignments involving the use of technology.

Participants

The population for this study consisted of students placed in college developmental courses based on their ACT scores. Students who score less than 19 in reading on the ACT are placed in a developmental reading course. The participants were freshmen in attendance at a local university in New Orleans. Students completed a demographic survey that provided student background information to be included in the final research study report. The study consisted of one intact developmental reading class taught by the teacher-researcher for two semesters. The class consisted of a maximum of twenty-five students. In the spring semester, the class consisted of eighteen students, eight males and ten females. In the fall semester, the class consisted of twenty students, five males and fifteen females. All were African-American students. Participants used various technologies in the completion of course assignments and activities.

Instrumentation and Procedure

As a teacher-researcher employing a qualitative methodology, the researcher collected various types of data over the course of an eleven week period. The following data types were collected: 1) a pre-survey regarding students' attitudes toward computer usage (for screening purposes only); 2) audiotapes of student interviews and focus group; 3) oral

presentations of Powerpoint documents; 4) class assignments/electronic submissions of personal reflections on course-related novel via email; 5) student answers to on-line teacher-researcher-made review questions on a particular segment of the novel via email; 6) student answers to on-line student-generated review questions on the novel via a Yahoo discussion group; 7) paper and pen tests on the novel; and 8) student input and evaluation of technology-based assignments during the course of the study. The researcher identified potential informants for interview purposes. A focus group and individual interviews were conducted at the midpoint of the study.

The study was conducted over a period of two semesters which allowed sufficient time for the required instructional activities to take place. From the inception of the study, students engaged in a series of course assignments in which they read and wrote, reflected and discussed– activities that were based on a course-designated novel used in the developmental reading course, Life is So Good. The participants for this study required to use specific technologies for these tasks. Initially, this teacher-researcher reserved the reading computer lab at the university for three class periods in order to provide assistance as students began to use technology in completing the required activities. Although some students may have had access to computers apart from the university, the incorporation of class-time lab visits addressed the concern of those students who may not have had easy access to computers off campus. Moreover, this teacher-researcher provided on-going assistance as per student need.

Semi-structured interviews were conducted, using eight informants from the class. Interview questions generally focused on students' perceptions of the impact of the use of technology to complete course assignments. Additionally, the teacher-researcher asked students if the use of technology in the developmental course had had any impact on their perceptions of the use of computers in other areas of their lives, such as, home, work, and/or other courses.

Students were asked for feedback on the assignments completed during the study: the electronic submissions of personal reflections on the novel, participation in the Yahoo Group discussion of selected segments of the novel, on-line submission of answers to teacher-researcher-made review questions on novel, and the creation of a Powerpoint presentation describing ten characters in the novel. This teacher-researcher also asked students what difficulties had they experienced during the study. Themes were identified and coded.

The Attitudes-Toward-Computer Usage Scale (ATCUS) (Popovich, P., Hyde, K., Zakrajsek, T., Blumer, C., 1987**)** pre-survey was used only as an initial screening device. The ATCUS was developed in two studies. In the first study, forty items were administered to three hundred sixty-five undergraduate students to assess attitudes toward the use of computers and computer-related mechanisms. The scale was found to have high internal consistency and was significantly correlated with two other scales measuring attitudes toward computers (Popovich et al, p. 261). A factor analysis was conducted, and based on the results, the scale was reduced to twenty items and administered to three hundred fifty-one undergraduates in a second study, where it was found to have high internal consistency. The internal consistency (alpha) reliability estimate for this twenty-item version of the ATCUS is .84 and the test-retest correlation is .91. The results of this study showed the ATCUS to be a reliable instrument, especially when assessing the reactions of undergraduate students to computers and examples of computer-related technology. The ATCUS consisted of four factors that represented positive reactions to computers, negative reactions to computers, and reactions to computer-related mechanisms (p. 267).

The following discussion represents the curriculum for developmental reading including course assignments and procedures for the study. The participants under study are registered in a

course that meets Mondays, Wednesday, and Fridays at 10:00 – 10:50 a. m. The discussion is in the present tense because this is the method in which the course has been taught in the past, is being taught in the present, and will be taught in the future.

WEEK ONE

The teacher-researcher introduces the course, focusing on the requirements as stated in the syllabus. The teacher-researcher also attends to the normal administrative duties that include verification of the class roster and verification of ACT scores. Students complete a demographic survey. In addition, the teacher-researcher informs students that the next two class sessions will be devoted to the university-mandated administrative diagnostic test, the Nelson-Denny Standardized Reading Test.

WEEK TWO – DISCUSSION OF RESEARCH STUDY

PROCEDURES FOR READING NOVEL - <u>LIFE IS SO GOOD</u>

The teacher-researcher discusses the research study with students, and attends to the required protocols for enlisting persons in the study. The teacher-researcher then begins the activities regarding the novel. The teacher-researcher reads aloud the first chapter of the novel, asking probing questions, ranging from the literal to the evaluative. The purpose of the 'read aloud' is to help the students get a clear understanding of the storyline, and to arouse the interest in [some] otherwise reluctant readers. Upon the completion and the discussion of the first chapter, the question is posed, "What do you think about my having read the first chapter to you?" Student answers are compiled and reported. At the close of the class session, students are asked to reflect on the events and characters in the first chapter and to be prepared to 'write' their reflections during the next class meeting.

For the next class meeting, the class meets in the Reading Computer Lab. The procedure for this meeting follows this format: students sign-up for a Yahoo e-mail account; type a 5-8 sentence personal reflection on Chapter One; and e-mail their responses to the teacher-researcher. The teacher-researcher provides step-by-step procedures for acquiring an e-mail account, as well as procedures for submitting their responses via e-mail. In their personal responses, students must include: the main idea of the chapter; personal reactions to events and/or characters in the chapter. The teacher-researcher also creates a 'Yahoo Discussion Group' that is used for other assignments during the research study period. The teacher-researcher also encourages those students who are familiar with the process to serve as peer tutors.

In order to insure that students become more familiar with electronic submissions of assignments, the teacher-researcher reserves the computer lab on the first class meeting of Week Three. The teacher-researcher is also in the lab for five of ten office hours required by faculty. During this period, the teacher-researcher is available for student consultation and assistance. The teacher-researcher is also available at other times, by appointment, to assist students. In consideration of potential concerns of some students regarding electronic submissions of assignments, the first submission is due on Tuesday of Week Three by 12:00 midnight.

WEEK THREE

Monday - The teacher-researcher reserves the computer lab in order to provide one-on-one assistance in posting electronic assignments.

Tuesday – Electronic submission of chapter 1 is due by 12:00 midnight.

Wednesday – Discussion of chapter 2 of novel

Thursday – Electronic submission of chapter 2 of novel

Friday – Discussion of chapter 3 (Submission due by Sunday, 12:00 midnight)

After each class discussion of an assigned chapter(s), electronic submissions of personal reflections are due the day before the next class meeting by 12:00 midnight).

WEEK FOUR

Students read, discuss, and submit personal responses for chapters 4 – 6. On Monday of Week Four, the teacher-researcher indicates that the class will be video-taped on Friday of that week to demonstrate students at work posting their personal reflections and the teacher-researcher facilitating the process. Students have the opportunity to accept/decline participation in the collection of this data stream.

WEEK FIVE

Students complete a pen and paper test covering chapters 1-5 of the novel. During this week, students read, discuss, and post personal reflections for chapters 7-10. Students follow the same posting due date times as with previous chapters.

Moreover, on Monday of Week Five, students post two review questions each from Chapters Six through Ten of the novel to the class Yahoo Discussion Group site. Each student must post answers to the questions of any TWO classmates to the Yahoo discussion group by Wednesday of Week Six by 12:00 midnight.

WEEK SIX

Students and teacher-researcher continue to use the format for submission of personal reflections for chapters 11-15 of the novel. In addition, the researcher discusses the next course project. In this project, students begin to consider which five characters from the novel they would like to describe. Students create a Powerpoint presentation of their selected characters. Students make their Powerpoint presentations during Week Ten.

WEEK SEVEN

During this week, the teacher-researcher reviews chapters 11-15 of the novel in preparation for testing and assist students in their preparation for their Powerpoint presentations.

WEEK EIGHT

Students complete a pen and paper test on chapters 11-15 of the novel. The teacher-researcher schedules two whole-class lab sessions to provide step-by-step procedures for the creation of student Powerpoint presentations. The teacher-researcher is also available beyond whole-class lab sessions.

Moreover, during this week, the teacher-researcher asks students for general comments on their experiences regarding using technology in the course to this point. Students' written comments will be submitted anonymously.

WEEK NINE

Students and teacher-researcher continue to use the format for submission of personal reflections for Chapters Sixteen through Twenty of the novel. On Monday of Week Nine,

students post two review questions from, Chapters Sixteen through Twenty, to the class Yahoo discussion group. Each student must post answers to the questions of any TWO classmates to the discussion group by Wednesday of Week Ten by 12:00 midnight.

WEEK TEN

Students and teacher-researcher discuss the final chapters of the novel, chapters 21-24, and [students'] overall reactions to the reading of the novel. Students are not required to post reflections for the final chapters of the novel. At the end of Week Ten, the teacher-researcher provides a critique of students' powerpoint documents before the start of presentations during Week Eleven.

WEEK ELEVEN

During this week, students make their Powerpoint presentations based on their selected five characters from the novel. Assessment of this project is based on clear descriptions of characters and adherence to rules of grammar/language mechanics.

Data Analysis Procedures

According to Borg and Gall (1989), the qualitative researcher uses inductive data analysis, in which she first gathers the data and then examines it to determine what themes emerge from that data. The teacher-researcher is then able to understand and report the outcomes of the study, whether expected or unexpected. The teacher-researcher transcribed individual interviews and focus group and analyzed the data by coding, re-reading, and re-coding themes as they emerged regarding students' perceptions of the use of technology for the electronic

submission of personal reflections, the Yahoo Group discussion site, answering teacher-researcher-made on-line chapter review questions, and the creation of the Powerpoint document describing characters in the novel. The teacher-researcher wrote descriptions of the aforementioned student artifacts that were coded. Specifically, the teacher-researcher took vignettes from each of these artifacts and described the dynamics that occurred as students completed the assignments. The teacher-researcher also maintained a reflective log of possible themes in order to look for emerging themes from the data.

Following the completion of the assignments in the study, the teacher-researcher organized the works of eight individual students focusing on their use of technology at the beginning, middle, and end of the course. I reported the themes of the study based on the re-analysis of the case studies and other data using the themes that emerged from my reflective log and codings in a recursive fashion. The teacher-researcher conducted a final member check based on the emergent themes. In light of the fact that no new information or themes emerged during the member check, additional informants were not sought as saturation did occur.

Regarding potential informants for the interview process, this teacher-researcher included for consideration basically those students from whom she had collected data for each major assignment during the course of the student. However, if there were students who seemed resistant to the use of technology during the course of the study, the teacher-researcher wanted to interview such students as their experiences would be important to the findings of the research study. Based on students' self reports, there were none resistant to the use of technology in the course to any substantial degree.

The teacher-researcher collected and interpreted data (sorting information into categories and themes), and engaged in narrative reporting writing. A matrix was used to display themes identified from interviews. This teacher-researcher presented themes and meta-themes identified in the interviews using a Conceptually-Ordered Display with cross-case analyses. This tool facilitated the formulation of the study's findings.

Research Question

Research Question: What are the perceptions of under-prepared college students of the impact of technology integration in a Developmental Reading Course?

Selection of Focal Students

After conducting a preliminary review of the data streams I collected, I decided on the following process for selection of the focal students. First of all, I included for consideration only those students for whom I had data for the four major computer-based, content-driven assignments. I included those students whose ACT scores in Reading were considerably low, scores below fifteen or sixteen. A major consideration for including students with low scores was my belief that those students might exhibit some of the characteristics of under-prepared [college] students. Moreover, I particularly wanted to identify those students' perceptions of the impact of technology integration in the Developmental Reading Course. Another consideration for selection of focal students was students' responses on the "pre-survey" in which they acknowledged their lack of, or minimal, knowledge and use of technology. A final consideration for selection of focal participants was their self-reported dislike or difficulty with reading, as evidenced in their completed reading inventory document.

Summary

This chapter presented the methodology for the teacher-research study included in the dissertation. Included were discussions of the research perspective, data collection, selection of participants, and the analyses. Also included in this chapter were the course assignments that the participants completed during the study.

Organization of the Remainder of the Study

The next chapter will: describe eight focal participants' experiences with, and perceptions of the impact of technology integration in a Developmental Reading Course; include excerpts from participants' artifacts, interviews, with comments on the four major assignments of the study; and, describe the six major themes that emerged from the various data streams. The next chapter will also describe the two meta-themes that emerged based on a re-analysis of the data. The sixth chapter will describe two meta-themes that emerged as invisible threads based on the data. The meta-themes will be discussed in light of the literature that addressed the characteristics of under-prepared [college] students in the study. The sixth chapter will also provide a discussion of the conclusions, findings, implications for teaching and practice, and recommendations for future research.

CHAPTER FIVE

DATA ANALYSIS

Introduction

This chapter details eight focal participants' experiences with, and perceptions of the impact of technology integration in their Developmental Reading Course. As a reflective teacher-researcher, I describe what I have observed, have written about, and have reflected on about participants' reactions to and involvement in using technology in the course to complete class assignments. I analyze the data holistically and thematically and build narratives of the focal participants' experiences.

Overview

During the semester, the eight participants and the other students engaged in four computer-based, content-driven class assignments. In addition, all students engaged in large and small group discussions of the novel. The four computer-based assignments were: 1) participants emailed personal responses on chapters from novel to teacher-researcher; 2) participants posted answers to teacher-researcher-generated questions from Chapter One of the novel to a Yahoo Discussion Group; 3) participants answered questions generated by any TWO classmates from Chapters Six through Ten and from Chapters Sixteen through Twenty, posted to a Yahoo Discussion Group; and, 4) participants created a "Character Analysis" document in which they

described any five characters of their choice from the novel, using Powerpoint to complete assignment.

Brief Description of the Participants

The following represents a brief description of the focal participants of the study.

Participant	Gender	Race	ACT Reading Score
Roxanne	F	African-American	12
Amy	F	African-American	9
Charles	M	African-American	13
Manny	M	African American	13
Edward	M	African-American	14
Karen	F	African-American	15
Melissa	F	African-American	N/A
Rita	F	African-American	N/A

The next section of this chapter discusses the four major computer-based assignments that the focal participants completed: personal responses to chapters in novel via email; answers to teacher-researcher-generated questions via a Yahoo discussion group; answers to student-generated questions from novel; and a character analysis document using Powerpoint. This

section also discusses the dynamics which occurred, among participants, as they completed the four major assignments. Vignettes of participants' works are rendered with original spellings and grammar. The selected sample of data streams presented in this section represented the [substance] range of the type of work submitted by participants. The accompanying narratives presented represented the dynamics that occurred as participants engaged in the various assignments.

Four Major Assignments

First Assignment – Personal Responses to Chapters in the Novel –Via Email

Since participants submitted personal responses to the novel for the length of the study, I selected a sample of their submissions at the beginning middle and end of the study to demonstrate any *movement/growth in their responses, from more "summary" to more in-depth discussions of their "opinions" and "reactions" to the novel. I also wanted to demonstrate [any] participants' use of other types of entries, such as, metaphors, similes, et cetera.

This assignment provided participants the opportunity to "write" and "revise" their personal responses. Participants were encouraged to reflect on the events and characters in the novel, and to express themselves through writing [email]. Participants were also encouraged to seek needed assistance in completing assignment. The following discourse represents cameos of several of the participants as they interacted with the different data streams.

Roxanne was a very pleasant, energetic, and involved student in class activities, completing assignments many times before due dated. At times Roxanne seemed perturbed that the pace of the reading of the novel was a bit slow for her. Roxanne's initial personal responses

to chapters in the novel were very detailed, with perhaps one or two sentences of personal reactions to the story. The chapters in the novel were discussed in class first, in whole group and small group sessions. As teacher-researcher, I initially asked literal questions to make sure that students understood basic facts about the novel. Subsequently, I posed more questions that required students to analyze, synthesize, and evaluate events in the novel. The purpose of these types of questions was to encourage students to think critically, that is, to think beyond the "surface level" of the story. I asked probing question, gently, to "let students know" that it was okay for them to express personal opinions and reactions. As stated previously, Roxanne consistently read, discussed [the novel] in class, and submitted her timely personal reflections, yet on a very basic level. The following represents three of Roxanne' sample submissions at the beginning, middle, and end sections of the novel.

Roxanne's Personal Responses

Beginning

Response to chapter7. In 1914 Archduke Ferdinand was assassinated. After he was assassinated they started World War I b/c of his death. Harrison picked George from the Littles and told him that his Aunt Mary and Henry were dead. They both were sick with Scarlet Fever. After his Aunt and Uncle died the children moved in with George's family. Altogether there are 14 children living in one house. By then George is 16. In the 1930's the mill where George worked caught on fire. George was paid a silver disk. Later George started hunting, 15years later someone stole his hunting gun. In 1914 George saw for the first time a Model T car. George family had a mule named Blue. One day George was trying to get the mule to move and the mule wouldn't move so he threw a rock at him and hit is eye. This caused the mule to be blind in one eye. George felt

bad b/c of what he did so, he decided not to hit an animal anymore. He stuck to this promise for 80 years. I personally think that the family is going to maybe have a hard time taking care of the other children. Also they can benefit from this by having more help with working on the farm.

Middle

In chapter 14, George goes to school and on Sunday he goes to church and on Saturday he does his personal things. When George arrived in St. Louis he went to the ticket master and gave him the ticket that was supposed to be a round trip to Cleveland. The ticket master refused to take b/c it wasn't a round trip ticket. The other ticket master cheated him. George decided to ride the rails. George met a couple of people that were doing the same thing. The train he was on was headed to New Orleans. George followed a man named Larry and they found a job working on a dock in New Orleans. George was starting to like the life in New Orleans. One night he went to a club and somebody started shooting and the man at the bar took the bullet in the arm. The cause of the shooting is b/c of a woman or gambling. The next day George bought a gun for protection and it cost him 15.00. George had a girlfriend named Nora. The captain on the ship wanted him to travel to India and his girlfriend didn't like his decision so she left him. George was all into impressing the woman on the dock about his job and he let the ship leave without him. George was left with nothing so he thought it was time to hit the rails again.

End

Response to chapter 20

On August 8 President Nixon was impeached. George Jr. was drafted for the Korean War. George Jr. was in the war for three years. George had a great nephew named Borice Stevens that served and was killed in the Vietnam. In the late 1960's he moved from the projects into his own

house(he and his second wife). George said that he met his last three wives at church. George was married 4 times. Been 12 yrs. since his wife passed away. He buried all of them. Seven years ago his daughter had cancer. His daughter died and he flew to California for the first time. George has been a member of the same church since 1928. George father died at age 99 and his mother stayed in Kaufman. Later his mother died. George last wife died. George did yard work more than 20 yrs. George stopped working in his 90's. Later George hired two men to work for him and they stole all his tools. So George decided to just retire from work. At the end of the chapter George took Richard to his church.

In the samples above, Roxanne's personal responses did not look qualitatively different spanning the course of the study. Despite the length of her responses [which was consistent throughout the study], it was only in the beginning (and approaching the middle) of the study that Roxanne stated her personal reactions to the story. Roxanne's remaining personal responses were detailed summaries of the events in the novel. Roxanne, who actively engaged in class discussions, though on a literal level, provided short reactions in the beginning to middle sections of the novel. However, toward the end of the novel, Roxanne offered shorter summaries, with no personal reflections regarding the events in the novel. Although Roxanne was always polite and cordial, she often seemed simply to "get it [assignment] done," without much ado.

Charles' Personal Responses

Beginning

In chapter 7 George deals with tragedy in his family. George's uncle and aunt died. George learned a valuable lesson in this chapter. He struck his mule in the eye with a rock and damaged the mule's eye. George vowed never to strike an animal.

Middle

After reading chapter thirteen, I have learned to appreciate the civil rights movement and its leaders. This novel often makes me think of how life would be for me if I lived in those days. George is being treated like a second class citizen everywhere he goes. Today things are different for black people. We are able to vote and live like first class citizens and that is why I appreciate the civil rights leaders.

End

This chapter [Chapter 21] is the most inspirational. Just like the previous chapters, it shows the will that George has. George explains how he got through life without knowing how to read. The value of having an education is priceless. George learned how to read at the age of 98. That alone shows his will to learn.

In the samples above, Charles' personal responses looked qualitatively different from the beginning to the end of the assignment. Despite the brevity of all his responses, Charles gave more personal reactions to the story than summary, as the course progressed. Charles also used a metaphor to demonstrate the importance of an education to him: "The value of an education is priceless."

Manny's Personal Responses

Beginning

Chapter 7 response: In the beginning of the chapter Richard and George was reading old papers from 1914 about World War I. George did not know much about the war in the paper. It said the war started after the assassination of Archduke Ferdinand. He did not remember the year because of that, but because that was the year his Uncle Henry and Aunt Mary passed away. He also stopped working for the Little's that year.

Middle

In chapter 13 George had just come back from Mexico. It also talks about Prohibition. When prohibition was going on a citizen of this country could not drink. During this time George said more were drinking than they ever did before or since. George planned on going to Chicago, but the ticket master said they did not have anything going to Chicago that day. So he got a ticket to Cleveland. The train stopped for two hour so George met a black man name Artis Smith so they went looking for a place to get something to eat. They got back to the train on time. Then George met a woman. She looked educated and she was reading a book. She asked George did he ever read the book. George didn't want her to know he could not read so he just said no. So she got off in Springfield and George got off in St. Louis. There he heard two men talking about work so the boss told Louis to get a man to work so he saw George. They were paid one dollar a day. The job was moving crates on the barge. The job was to last for two days then George went on his way.

End

In chapter 20 they started of talking about Watergate and president Richard Nixon. He also talked about president clinton. George started talking about the wars he missed. He missed World War I because his boss told him to put his X on some kind of paper. He was too old to serve in World War II, but George Jr. was drafted to the Korean war. He also said how all his children lived in Dallas except Darrell because he lives in Chicago.

From beginning to end, Manny's personal responses did not look qualitatively different. All responses were basically summaries, with no mention of personal opinions or personal reactions to the events and characters in the novel.

Karen's Personal Responses

Beginning

CHAPTERS 7 AND 8

In the fall of 1914, George got a surprising visit from his father. At this time, he was still working for the Littles and hadn't been home in several weeks. His father told him bad news about his uncle Henry and Aunt Mary dieing suddenly. As George prepared to leave the Littles, they all were around him in sorrow. They all had kind words to say to him; that made George feel special. In the same year, George had seen his first vehicle which he described as beautiful. He also felt bad about hurting the families mule, "Blue". Blue made him mad; George threw a rock at him and took out his eye. George still felt bad, after 80 years.

George was a baseball player for the Hornets. The team would take trips to play against other teams. During their trips, they would have to deal with the whites only issue: not being able to eat at the same places, use the same restrooms, and drink out of the same fountains. At one game, George and the team almost got a beating from the town they played in. They won the game and the people there were not happy at all.

I felt sorry for George's father when his brother and sister-in-law died. It felt good to see how much the Littles appreciated George being there. They showed concern and sympathy towards the family. I was glad to know that baseball was a big part of blacks back then. It was one thing that kept them busy. I was glad when the team got out of the small town in time before someone got hurt.

Middle

In this chapter (13), George speaks about being back from Mexico and back to reality. Texas was not where he wanted to be so he continued to travel. He wanted to go to Chicago but ended up going towards Cleveland. George met Artis Smith on the train and when it stopped in Oklahoma, they ate together. Even though Artis didn't know George couldn't read, he was a big help with reading different signs regarding coloreds are not allowed. While in St. Louis, George overheard someone looking for a worker. He made himself noticeable to a man name Louis and in no time at all, he was a working man.

In this chapter (14), George was cheated out of a train ticket to Cleveland so he decided to ride the rails. While riding the rails, he met two white men, Alex and Jerry. They talked to one another but once they were off the rails, George had to go his own way. He later met Larry who was from New Orleans. Larry introduced him to Red who gave him work. George enjoyed being in New Orleans; he became a ladies man. George got the opportunity to go to India by working on the ship but missed that opportunity. He felt there was nothing left for him in New Orleans so he decided to hit the rails.

George shouldn't have been cheated out of a train ticket but I liked how he kept going on. Not knowing how to read did not hold him back. I'm glad George was able to escape the bulls and make it to New Orleans. He had a good time being a young man in New Orleans. I was sorry he had to leave when he missed his chance to go to India.

End

CHAPTERS 19 AND 20

In this chapter, George speaks about the time when he still worked even after quitting his job in 1963. George would do yard work and gardening for different people. One lady he worked for

didn't treat him like a human being. One day, George was doing work for her and he was really hungry. She gave him some food late that day but she put his food out along with the food for the dogs. As hungry as George was, he didn't eat that food because he felt like she wanted him to eat outside with the dogs. George told her how he felt and she got angry and told George to not come back and George agreed.

In this chapter, George spoke about Junior being drafted for the Korean War; he was there for three years. George had four wives whom he outlived. One of his daughters got cancer and died from it. It still hurt George even though it happened a while ago. When he went out to California to see about his daughter, he flew, and that was his first time on an airplane. He spoke about how coincidental it was for his siblings to visit his mom at the same time and no one knew about the other coming out to visit until she died all of a sudden. That was the reason why she died, because all of her children were there.

I've always admired George for being a hard working black man. Even after retiring, he still worked for people. I'm glad that George's mother died with her children around because no one knew about each other visiting her. It was meant for them to be there for their mother.

From beginning to end, Karen's personal responses consistently reflected a combination of detailed summaries as well as personal reactions to the story. Despite lengthy "summaries," Karen followed the general guidelines of the assignment.

Rita's Personal Responses

Rita was a "non nonsense" person. She said that she had entered school to accomplish her goal of acquiring her undergraduate degree, and that nothing was going to stand in her way in achieving that goal. She was the quintessential student, always prepared with assignments, and exhibiting impeccable attendance and class participation. However, Rita shared that she had not

done so well previously in high school, but that she was truly committed to the task [university life] at hand. The following represents three of Rita's sample submissions at the beginning, middle, and end sections of the novel.

Beginning

Chapter 7 George's Uncle Henry and Aunt Mary died of scarlet fever. Harrison and his wife took their 9 children to raise them. This chapter brought back a lot of memories for me when thinking about the passing of my parents. The feeling of being alone caused me to have tears as I read, just to remember the time, and how friends and loved ones gathered for this type of occasion.

Middle

Chapter 14:
George discovered that the conductor did not give him the ticket, so he was unable to make it to Cleveland. He met a friend by the name of Larry and they rode rail on the train to New Orleans to find work. Brings excitement to know that George was trying to better himself.

End

Chapter 21:

George began school and was always the first in class. At the age of 98 George begins to learn how to read. His son Junior was supportive and expressed how proud he was of his father. This is encouragement to me to continue my undergraduate studies. The support that my family gives is exceptional.

Rita consistently gave brief chapter summaries and personal reactions to events in the story. Rita related some of the events in the novel to some of the events in her own life. Rita indicated that George's life served as an inspiration for her in her academic pursuits.

The foregoing discourse presented sample works of the participants in the present study. An analysis of the content of participants' responses revealed that with very few exceptions,

most participants' responses were basically summary in nature. Most participants, including Roxanne and Manny gave moment-by-moment details of the story. Although the entries of Roxanne and Manny predominantly consisted of lengthy summaries, with few personal reactions, they did, in fact write. According to the literature review in Chapter Two of this study, one of the characteristics of [some] under-prepared students was their resistance to "reading" and "writing." And, even though Roxanne and Manny did not express more of their personal reactions to the story, they did **read**, **write**, submit, **re-write** [**edit and revise**], and re-submit their summaries. The email assignment did engage them in the completion of the assignment. Roblyer, Edwards, and Havriluk (1997) noted that students could use [components of] word processing for almost any written work, regardless of the content area, work that would otherwise be written by hand. Roblyer et al also stated that word processing could not improve the quality of students' writing, but it could help them make corrections more efficiently, and this could motivate them to write more and take more interest in improving their written work. Roxanne and Manny exhibited that particular behavior throughout the semester

Despite the brevity of their personal responses, Charles, Karen, and Rita moved beyond simply summarizing the story to expressing the impact that the story had on their individual lives.

Roxanne, who actively engaged in class discussions, though on a literal level, provided short reactions in the beginning to middle sections of the novel. However, toward the end of the novel, Roxanne offered shorter summaries, with no personal reflections regarding the events in the novel. Although Roxanne was always polite and cordial, she often seemed simply to "get it [assignment] done," without much ado.

Charles' personal reflections, as well as his personal reactions, were consistently brief. However, between the middle and end of the novel, Charles began to identify with some of the events in the novel. Charles related the main character, George, and the events that surrounded George, to his own life. Charles indicated that George's story was an inspiration to him in that George, despite the many challenges he faced, maintained his dream to learn how to read, even at the age of ninety-eight. Charles stated, "After reading Chapter Thirteen, I have learned to appreciate the Civil Rights Movement and its leaders. This novel often makes me think of how life would be for me if I lived in those days. George is being treated like a second class citizen everywhere he goes. Today, things are different for black people. We are able to vote and live like first class citizens. And, that is why I appreciate the Civil Rights Movement." Charles indicated that "the value of an education is priceless." As a reflective teacher-researcher, in my mind I juxtaposed Charles' reticence during class discussions with his written personal responses. Although Charles was very reserved in class discussions, that is, speaking only when directly questioned by teacher-researcher, his personal reflections demonstrated a certain depth of thought, an appreciation for a self-defined big picture – the value of an education to him. Charles stated, "George explains how he got through life without knowing how to read. The value of an education is priceless. George learned how to read at the age of ninety-eight. That alone shows his will to learn."

In addition to her concise chapter summaries, Rita also demonstrated application of certain aspects of George's life to **her** own personal life. As George remembered the death of his Uncle Henry and Aunt Mary, Rita recounts that she tearfully remembered when family and friends gathered to comfort her during the deaths of her parents. Recounting the support that George's son, George, Jr., gave to George as he learned how to read at the age of ninety-eight,

Rita asserted, “This is encouragement to me to continue my undergraduate studies. The support that my family gives is exceptional!”

An analysis of the content of participants’ responses revealed that, with very few exceptions, most participants’ responses were basically summary in nature. Most participants gave moment-by-moment replays of the story. Moreover, the participants who offered personal reactions to the story did so in a one-to-two sentence reaction. Roxanne, who actively engaged in class discussion, though primary on a literal level, provided short reactions in the beginning to the middle of the novel. However, toward the end of the novel, Roxanne offered shorter summaries, without any personal reactions. Although Roxanne was polite and cordial at all times, she seemed simply to want to “get it [assignment] done,” without much ado.

Charles’ summaries, as well as his personal reactions, were consistently brief. However, toward the middle to the end of the novel, Charles related the main character in the novel, George, and the events that surrounded George, to his own life. Charles indicated that George’s story was an inspiration to him in that George, despite the many challenges he faced, maintained his dream to learn how to read, even at the age of ninety-eight. Charles indicated: “The value of an education is priceless.”

As a reflective teacher-researcher, in my mind, I juxtaposed Charles’ in-class reticence with his personal responses. Although Charles was very reserved in class discussions, that is , speaking only when probed, his personal reflections, though brief, demonstrated a certain depth of thought, an appreciation for a self- defined big picture – the value of an education to him.

In addition to her concise summaries, Rita also demonstrated application of certain aspects of George’s life to her own life. As George remembered the death of his Uncle Henry and Aunt Mary, Rita indicated that she tearfully remembered when family and friends gathered

to comfort her during the death of her parents. Moreover, Rita indicated that George's strong will to accomplish his dream inspired her to hold fast to her dream of completing her undergraduate degree.

Second Assignment – Participants' Answers to Teacher-Researcher-Generated Questions – Chapter One - Via a Yahoo Discussion Group (Procedures and Questions Listed Below)

Participants answered five questions from Chapter One of the novel, posted to a Yahoo discussion group. This assignment provided participants the opportunity to demonstrate recall of basic facts regarding the events and characters at the outset of the novel. This assignment also provided participants an initial [course] opportunity to engage in an [asynchronous] electronic discussion group.

Chapter 1 - Life is So Good - Short Review - Read and answer the following five questions as a short review. USE COMPLETE SENTENCES.

1. In what city and state does the story take place?

2. As George and his father are in the general store, a "commotion" is taking place outside. Describe what is taking place, and what is the final result?

3. As George attempted to defend Pete, George's father stops him. Why do you think he stops George?

4. What is Pete to George, that is, what does George think of Pete?

5. Filled with anger after what happens to Pete, George says that there are two things that he will never do again. What are those two things?

Charles' ANSWERS

1. The story takes place in Marshal, Texas.

2. Pete is fighting to get away, but the men overpowered him and he was hung in front of the town.

3. George's father stopped him because the white men would have tried to harm him.

4. Pete was George's hero.

5. George said he would never speak to or work for a white man -

Manny's ANSWERS

1. The city and state the story took place in was Marshall,Texas.

2. The commotion outside the store was about white people saying Pete raped a white woman so they lynched him.

3. George's father stopped him because he did not want the same thing to happen to George.

4. George and Pete were cool but, he mostly looked up to Pete.

5. After Pete was lynched George said he would never talk to or work for a white person.

The two samples above indicated that participants were able to recall basic facts regarding events and characters in the novel. Participants also demonstrated successful completion of assignment using the Yahoo discussion group. One participant was unable to post answers to the Yahoo discussion group due to technical difficulties. In addition, [other] participants who experienced technical difficulties in submission of assignment were given the option to email that particular assignment.

The purpose of the teacher-researcher's construction of such literal questions at the beginning of the novel was two-fold: 1) to conduct a member check to confirm that students were indeed reading the novel, or at the least, interacting with the novel in a tangible way; and, 2) to introduce students to the use of technology in completing that particular assignment involving minimal course content, as preparation for completion of subsequent computer-based assignments. This assignment had its basis in the literature in this present study that indicated that some under-prepared students exhibited a passive learning style – unengaged and many

times not completing assigned tasks. This assignment required active student participation within a specified time frame.

Third Assignment – Participants' Answers to Student-Generated Questions from Chapters Six through Ten and Chapters Sixteen through Twenty

Participants created and posted two review questions each from Chapters Six through Ten to the Yahoo discussion group. Participants repeated this assignment for Chapters Sixteen through Twenty. Subsequently, participants answered the questions of any TWO classmates, posted to the Yahoo discussion group.

This assignment provided participants the opportunity to learn and review course content from the perspective of other students. Moreover, the recursive use of the Yahoo discussion group to create, read, and answer questions of other students could have a positive impact on participants' retention of information. Finally, this activity provided participants the opportunity to develop and enhance their competency and comfort levels with computers.

Roxanne

"Roxanne's " RESPONSES "Amy's" QUESTIONS – CHAPTERS SIX THROUGH TEN –
Chapter 6

1. How did George hurt Ashley's feelings?

2. Where did George sleep at night?
a. In the Littles home
b. Behind a hay stack
c. In a shed
d. In the wagon out back
(c)

Chapter 7

1. What were the exact words Mr. Little told George when he heard that his family members had died?

a. You still need to finish your work before you leave.
b. Sorry to hear about your family

c. You can have the rest of the day off
d. George, you've been a good worker as good as any I ever had
(c)

2. Why was George getting mad at the mule? (Because the mule wouldn't listen to him.)

Chapter 8

1. What was the name of the baseball team that George and Johnny were on together?(The Hornets)

2. What position did they play?

Chapter 9

1. When the spring time came what was a good thing to do?

2. What was the name of the place where people would go camping?

Chapter 10

1. What was the name of the diner that George and Charles ate at?

2. Where was this diner located and who owned it.

“Roxanne’s” RESPONSES TO “Edward’s” QUESTIONS - CHAPTERS SIX THROUGH TEN

1. In what year did blacks have a chance to vote?

2. How does George describe Ashley?

3. What bad news did George's father tell him about his aunt and uncle? George's father told him that his aunt and uncle died.

4. What was the name of the Dawson's mule?

A. Black B. Blue C. White

(b)

5.How much was gas back then?

A.50 cents B.40 cents C.20 cents

(c)

"Roxanne's" RESPONSES "Manny's" QUESTIONS – CHAPTERS SIXTEEN THROUGH TWENTY

Chapter 16

1. In the year 1928 George was in New Orleans. True Or {False}

2. When George's mother saw him, she kissed him and said come in.

True or (False)

3. Who did George marry? (Elenzia)

Chapter 17

1. In chapter 17 who was the U.S. President?

2. George broke horses so he could show he had more intelligence than white men.(T) or F

3. How much did George get when he broke the horse in chapter 17?(50 cents)

Chapter 18

1. Who was apprehended and killed in a shootout in West Dallas in 1938?(Bonnie and Clyde)

2. When did George and his family move to Dallas?(1938)

3. During the Depression there were lots of jobs, but they were for whites. T or F (f)

Chapter 19

1. In chapter 19 George had retired. What did he do with his time?(He did yard work)

2.Why didn't George eat the food on the porch?(He felt like he was being treated like a dog.)

3. After president Kennedy was killed who became president?(Lyndon Johnson)

Chapter 20

1. What war was George too old to serve in?(Korean war)

2. All of George children lived in Dallas except_____(Darrell)

"Roxanne's" RESPONSES TO "Manny's" QUESTIONS- CHAPTERS SIXTEEN THROUGH TWENTY

Amy

"Amy's" RESPONSES TO "Roxanne's" QUESTIONS CHAPTERS SIX THROUGH TEN

How much did George get paid at the mill?

a).50 *b)$1.50 c)$1.00

True / False

Sammy was the mechanic for the bus. FALSE

Sammy was the mechanic for the bus.

“Amy’s” RESPONSES TO “Edward’s” QUESTIONS CHAPTERS SIX THROUGH TEN

1. In what year did blacks have a chance to vote?

1910 WAS THE YEAR THAT BLACKS WERE ABLE TO VOTE.

2. How does George describe Ashley? HE DESCRIBES HER AS A NICE PERSON.

3. What bad news did George's father tell him about his aunt and uncle? THAT THEY HAD DIED FROM YELLOW FEVER

4. What was the name of the Dawson's mule?

A. Black B. blue C. white

THE NAME OF THE DAWSON'S MULE WAS BLUE

5. How much was gas back then?

A.50cent B.40cent C.20cent

GAS WAS 20 CENTS

“Amy’s” RESPONSES TO “Tanya’s” QUESTIONS – CHAPTERS SIXTEEN THROUGH TWENTY

Chapter 16

1. When George reached home did he find his parents? YES

2.Who did George go to for answers about his parent?

3. What year was George heading home after seeing the snow? 1928

Chapter 17

1. How much did they pay George for riding the wild horse?

2. Was George's wife mad with him? YES

What was George making in the kitchen when Richard was messing with the film projector?

Chapter 18

1.Who was the man who gave George a hard time when he was working on the dairy farm?

Was George the only one who knew how to work the machines? YES

How old was George's son when he got in trouble? SIXTEEN YEARS OLD

Chapter 19

1.Who did George work for when he was planting plants in the big yard?

2. How did George feel when the old lady made a comment about the heat?

3. How did George enter the old lady's house?

Chapter 20

1.When George picked up the article who did he remember as President?

2. After he retired when did George move out of the project?

3. Junior was drafted for the Korean War, and how many years was he over there? 4 yrs.

4. How did George enter the old lady's house? THROUGH THE BACK DOOR

“Amy’s” RESPONSES TO “Mason’s” QUESTIONS–CHAPTERS SIXTEEN THROUGH TWENTY

Chapter 16

1.What year was George heading home after the incident with the snow? 1928

2. What is George’s first born named? GEORGE JR.

3.When George returned home where did his family move? And why?

THE FAMILY MOVED BACAUSE THERE WASN’T

ANY MORE WORK FOR THEM AND THEY MOVED TO THE EDGE OF

KAUFMAN.

Chapter 17

1.In what year did George start working on the railroad? 1928

2.What towns were built on tracks? HOOVERVILLE

3.Where did George and Johnny go before George’s first child was born? THEY WENT TO

OKLAHOMA TO CATCH A HUSTLER.

Chapter 18

1. What was the reason George said he could barely hear? He could hardly hear from all the noise that he had heard over the years working with the boilers

2.What age was Junior when he got in trouble at school? Junior was sixteen when he got into trouble.

3. What was the reason George stayed at the same position at work he started at?

Chapter 19

1.Why did George refuse to eat his food the lady left out for him?

2. What was the reason George’s wife overheard the woman say they were upset with the lady who paid more?

3. Who is the baby out of George's children?

Chapter 19

How old did George say the baby was?

Chapter 20

1.In this chapter, how many times does George say he was married? 4 times

2. What was the reason George says he didn't build his new house?

3. What age was George's father when he passed away? He was 99 years old.

The above samples of participants' questions and answers indicated that participants were able to recall basic facts regarding the events and characters of the novel. Based on the content of the above samples, there appeared to be no qualitative difference in content [questions and answers] among participants' entries. Questions were predominantly literal in nature.

Through the course of the study, there were standard procedures for reading the novel and completing the content-based assignments using technology: 1) teacher-researcher read Chapter One of the novel to students in order to pique student interest in the novel and to assist students in understanding the novel from its very beginning. This activity involved a whole group discussion of the chapter in which students were asked to give their personal reactions, orally, to the events in the chapter. The teacher-researcher asked probing questions to encourage students to think beyond the surface level of the story, bringing in discussions of the events and possible emotions [of characters and students] surrounding the Civil War. The teacher-researcher envisioned the class discussion as a rich source upon which students could formulate more analytic and evaluative questions, as modeled in the whole group discussion. For subsequent chapters: students read designated chapters before class; students [and teacher-researcher]

discussed chapter(s) in class; and, students posted questions [and answers] to a Yahoo discussion group as per due dates.

As represented in the above samples of student generated questions, the questions of virtually all participants were literal in nature. Based on student's questions, there was no evidence that students constructed sentences that required higher ordered thinking skills. Despite class discussions in which the teacher-researcher modeled the process of creating such questions, students invariably constructed literal questions. Despite the fact that all participants in one form or another, exhibited excellent reception to the use of technology, the substance of their work remained marginal. Smith and Price (1996) contended that under-prepared students seldom exhibited or mentioned [the quality of] their own effort as a cause for academic achievement.

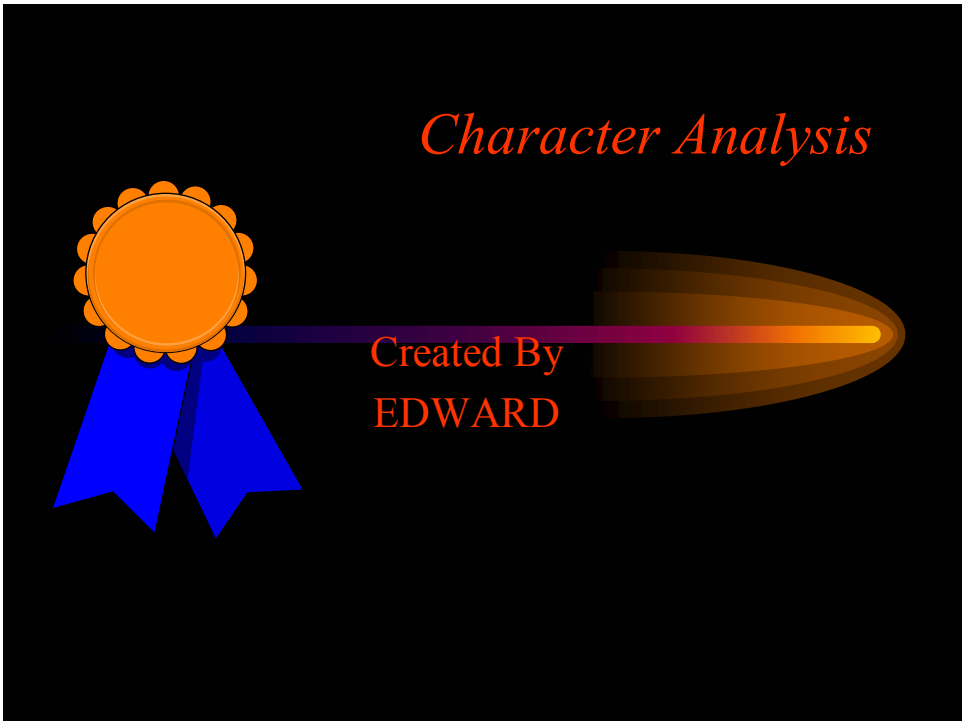
Fourth Assignment – Character Analysis Document Using Powerpoint

Participants created and presented a "Character Analysis" document in which they described ten characters of their choice from the novel. Participants were instructed to identify the roles that those characters played in the novel. Participants used Powerpoint for this assignment.

This assignment provided participants the opportunity to demonstrate: knowledge of the characters; overall comprehension of the events [story-line] and characters; and competence and comfort level in the use of technology. Moreover, the recursive use of the same characters by participants had a positive impact on participants' retention of information, as perceived and reported by participants.

The first Character Analysis document presented is that of Edward. Edward generally did not readily participate in class discussions and activities; however, he enthusiastically engaged in

the creation of his Character Analysis document using Powerpoint. The following is Edward's document, rendered with original spellings and grammar.



Pete

- 17 years old,
- George's best friend and hero.
- Good in baseball and a hard worker.

Master Lester

- Owned plantation in Mississippi
- Grandmother's Sylvie and Charity worked for him.
- He said "Sylvie owed him eighty-seven dollars,and Charity owed him one hundred five dollars."

Johnny Little

- Looked up to George
- Reminded George of his little brother.
- Helped George smile.

Mr. Blake

- Harrison's next door neighbor.
- Cattle died in the drought.
- Sold land to Harrison for fifty cents an acre.

Richard Glaubman

- George's friend and author of book "Life So Good."
- Asked George a lot of questions about his life.
- History major.

Jacob Little

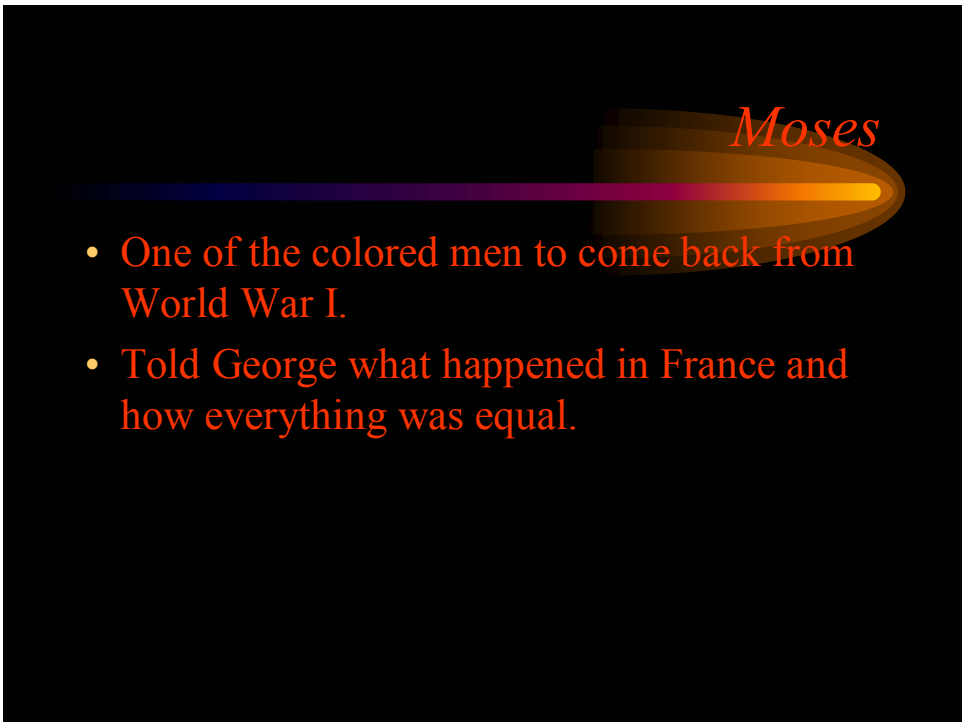
- Helped George bring cows to the barn.
- Hated when Adam Little showed off about what he learned in school.

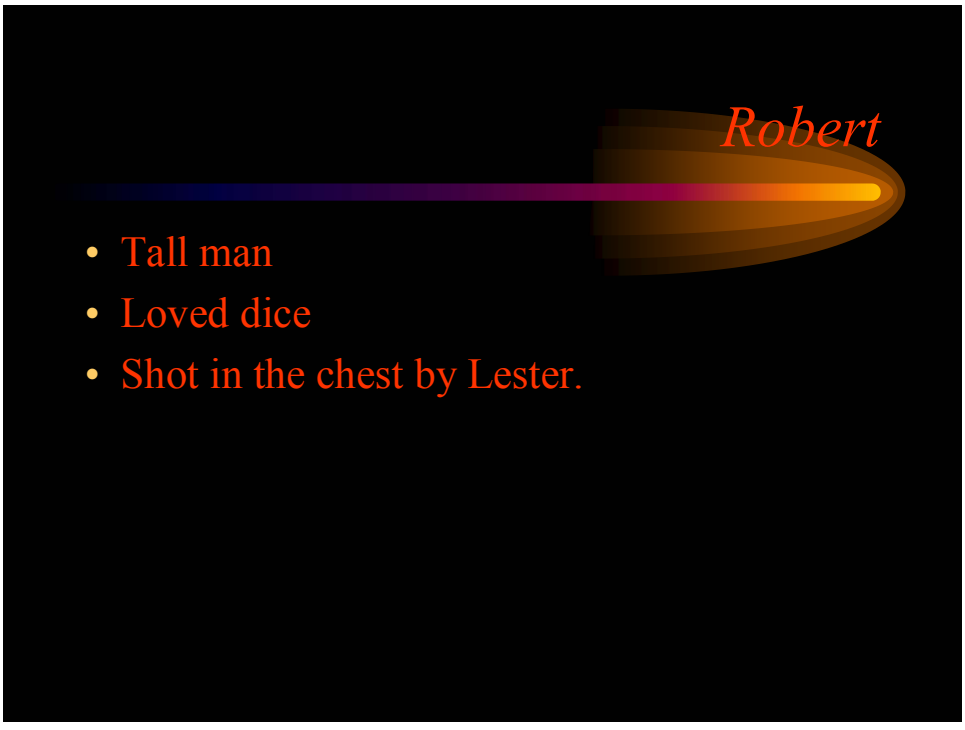
Harrison (George's father)

- Head of Dawson farm
- Taught George right from wrong.
- Helped George become a man.

Jackie Robinson

- First black major league baseball player.
- Helped open the doors for other black baseball players.





Edward presented facts about each character; however, he gave only limited information regarding the characters' demographic backgrounds, substantive personality traits, and the roles that the characters played in the novel. And, despite the fact that Edward indicated eagerness and

a willingness to complete computer-based assignments, the content of his Character Analysis was somewhat marginal. This fact has implications for teaching and practice, discussed in the last chapter of the present study.

The second sample Character Analysis document is that of Karen. Karen was always intensely involved in regular and lab class sessions. She was diligent in creating the document, exhibited by her frequent visits to the lab as I supervised the lab during my appointed times. The following is Karen's Character Analysis document.

Grandma Sylvie

- Born into slavery in 1812
- Great-grandmother to George
- Mother to Grandma Charity
- Told stories to George regarding slavery
- Freed from slavery
- Forced to stay with Master Lester to work

Grandma Charity

- Grandmother to George
- Grandma Sylvie's daughter
- Told stories to George regarding slavery
- Freed from slavery
- Forced to stay with Master Lester
- Married to Tom Dawson

Pete

- Seventeen years old
- Admired by George

- Baseball player (short stop)
- Wrongfully accused of rape
- Lynched for an alleged crime

Johnny Dawson

- George's brother
- First person in George's family to read
- Made his mother cry when she heard him read; she didn't know he could
- Read from Bible

Tom Dawson

- Grandma Charity's husband
- George's grand-father
- Helped Grandma Charity and Grandma Sylvie clear their debts
- Fought in Civil War
- Informed Grandma Sylvie of Reggie dying in war

Moses

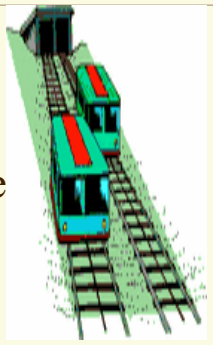
- In the Army
- Shared everything with whites in Paris
- Didn't have the same freedom in Marshall as in Paris
- His right arm was cut off

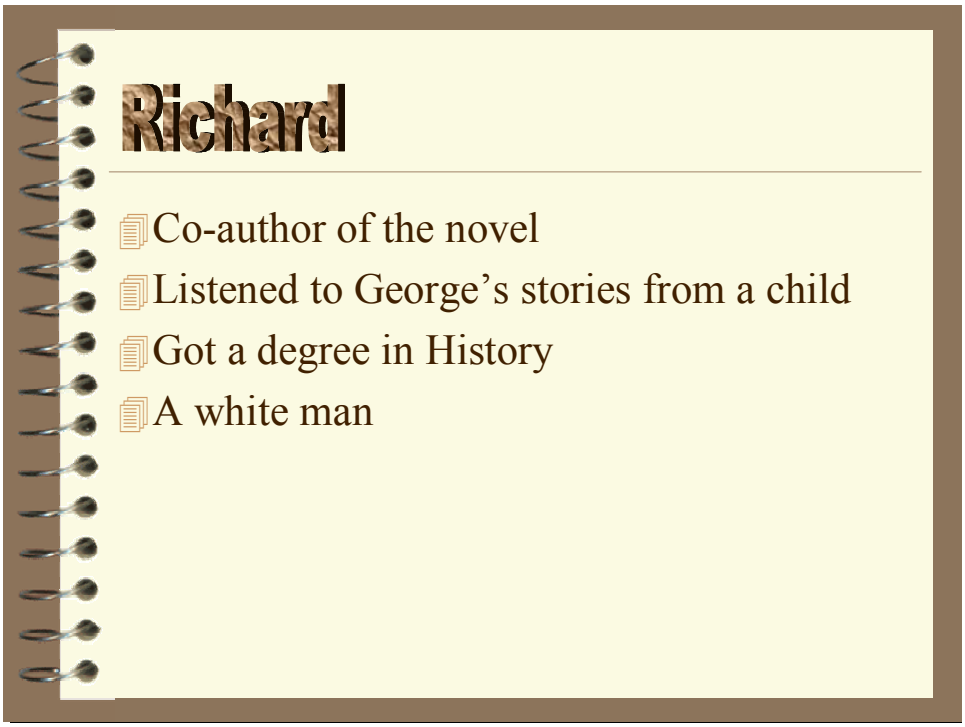
L. D.

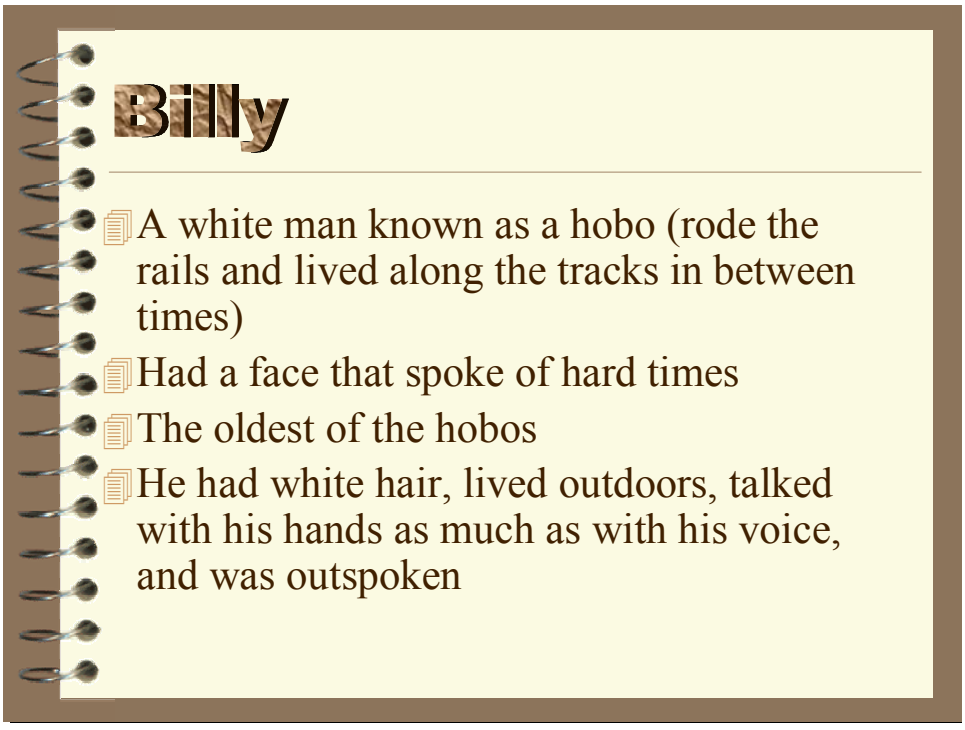
- A naïve friend of George
- Traveled with George for a short time
- George carried his load because he had no money
- He was shot in the knee while riding the rails
- Put in hospital and lost his leg at the knee
- Was left behind by George

Charles

- Met George on the train
- Gambler
- Well-known by everyone
- Had a lot of money
- Ostentatious



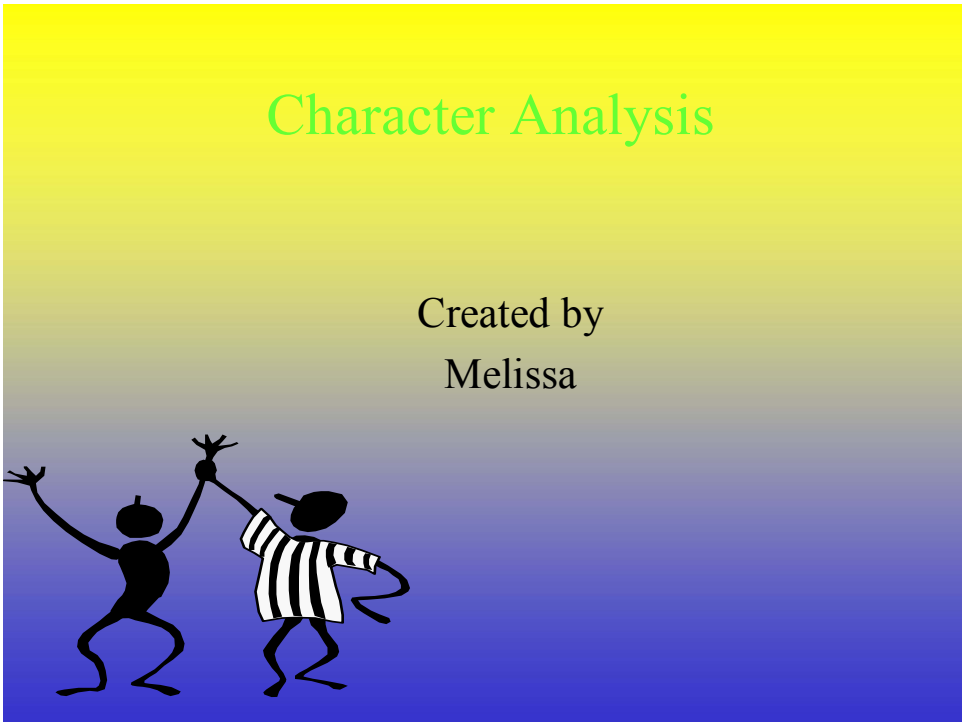




Karen demonstrated a concrete understanding of the characters and their roles in the novel. Karen provided sufficient information that would enable the reader to acquire a certain degree of familiarity with the characters. In addition to her demonstration of her knowledge of course

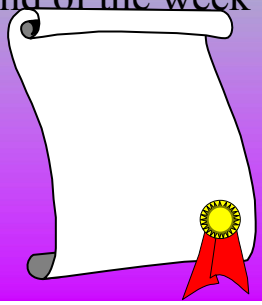
content [solid representations of characters], Karen exhibited development of her competence in using technology through the incorporation of graphics [and sound]. The latter fact was important since Karen had stated in her interview that she had never used Powerpoint before this course.

The final sample Character Analysis document is that of Melissa. Melissa completed assignment as required, and incorporated a variety of effects.



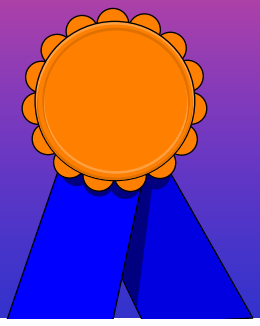
Sam

- The white foreman who worked with George
- George's boss
- Paid George's father at the end of the week



Mr.Blake

- A white landowner
- Sold land to George's father
- Came to George's father's home to deliver the deed



Hank Richards

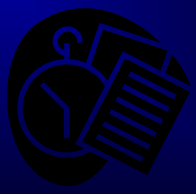
- The first baseman
- Driver to the games
- Had a driver's license

Billy

- A White man
- A hobo
- Loved to tell stories

White Ticket Master

- Worked at the train station
- Sold George the tickets to travel
- A very rude man



Charles

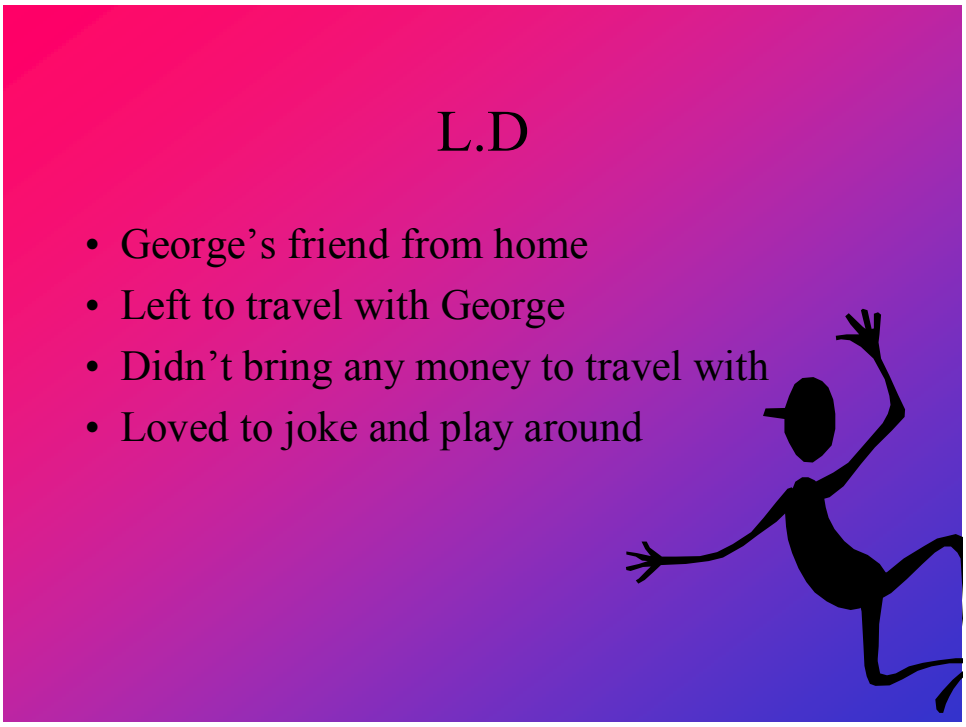
- George's traveling mate
- Ate at Pappa Joe's with George
- Took George to a dice game

Artis

- Second baseman on George's them
- The lead hitter
- Love to study pitchers

Johnny

- The pitcher on George's team
- Always waited for George to signal what kind of pitch he should make for each game.
- Loved George to be the catcher



The recursive use of technology was evident in Melissa's creation of her Character Analysis in that she regularly sought guidance from the teacher-researcher, as well as from other classmates regarding adding more information about the characters and adding an assortment of graphics

and sound to her document. The potential for retention of information was great. And, it is that recursive use of technology within course content that can positively affect student learning.

Through the creation and oral presentation of the Character Analysis, participants demonstrated a solid grasp of the characters and the story line. Participants of the present study and other students added different details regarding the characters and the story events as oral presentations took place. Participants indicated that the use of Powerpoint to create their Character Analysis had a positive effect on their learning. Three participants, in particular, gave comments.

Melissa said that she learned how to create Powerpoint presentations in the Developmental Reading Course. Moreover, during her interview, Melissa indicated that the [recursive] use of the some of the same characters by other classmates, through oral presentations, helped her to understand the story and the characters better. Finally, Melissa indicated that, not only did she learn how to use Powerpoint in the Developmental Course, she also transferred [used] that acquired knowledge in another class for which she constructed a Powerpoint presentation.

Rita stated, " Powerpoint…I have enjoyed it because you were able to go back and look through information that was previously given…even with the information that I may have had on each character, there may have been other persons who used the same characters. But, there was always something DIFFERENT…that they had that you could put together…and come up with many ideas of the different characters from the analysis…and it just broadened you knowledge of each character."

Edward said, "It [Powerpoint] is fun using it…And, I wanted to explore a little bit more…just putting everything together to see how it turns out…It makes you understand the

lesson a little bit more…As we put it together…I am able to understand more…facts from everybody else…including my works."

As noted in the literature review of the present study, researchers (Dauite, 1986; Montague & Fonseca, 1993) found that the use of multi-sensory software can be useful for some under-prepared students who are easily distracted or who have short attention spans. Moreover, these researchers contended that the use of graphics could help [under-prepared] students who may have difficulty with short term or long term memory since graphic presentations of data are easier to remember. Lastly, Jacobson (1993) cited longstanding pedagogical claims that students tend to learn faster and retain more information the more they see, hear, and interact in the learning process, which he said was precisely the kinds of multi-sensory involvement that technology can promote.

Additional Artifact

Whole Class Discussion

In addition to participants' personal responses, answers to [teacher-researcher-generated and student-generated] questions, and a character analysis, students participated in an audio-taped class discussion of a segment of the novel. In preparation for the discussion, students were assigned individual sections of the novel to present to the class orally, as a springboard for general class discussion. Students were informed a week in advance that the session would be audio-taped.

This activity provided participants the opportunity to: demonstrate active learning; incorporate the ideas of others in their knowledge base; and think critically about the events and characters in the novel. Moreover, this activity created a milieu upon which participants could base their personal responses to the novel.

The following is an excerpt from the transcript of the audio-taped class discussion of Chapters Eleven and Twelve of the novel.

M: Teacher-Researcher
S1: Roxanne
S2: Student 2
S3: Amy
S4: Student 4
S5: Student 5
S6: Student 6
S7: Student 7
S8: Student 8
S9: Manny
S10: Student 10
S11: Charles
S12: Student 12
S13: Student 13
S14: Student 14
UV: Unidentified (student) voice during discussion
Gr.: Students in General
CAPS: Word(s) that are emphasized
Xxxxx Xxxxx: Inaudible word(s)

M: We would like to start the discussion of Chapter Eleven in <u>Life is So Good.</u> As a quick review, how does chapter ten end? What is the last thing that happens in chapter ten? [waits for students' responses] How does it end?

Roxanne: George went to Tennessee, huh?

M: He goes to Tennessee. What happens in Tennessee? What are some of the things that happen in Tennessee?

Roxanne: He was around people who were playing dice, and they were shooting up people.

M: The last thing that happened in chapter ten was that [pause]

Roxanne: [overlapping] They were playing dice, and the game went bad, and they started shooting people.

M: And, who was killed?

Roxanne: The man that was accused of cheating.

S2: Lester, that's the only one I know.

Gr: [some answer] Lester or Robert. Robert was killed.

M: Okay, [smiles] so it's multiple choice! Who was killed?

Amy: Lester was killed?

M: Robert was killed. Robert was killed. [pause] Okay, how does chapter eleven start?

Roxanne: Richard gave George a magazine. And, when he saw the magazine, he saw it was like a magazine that had a lot of rivers and stuff. So, we went back in time [flashback] talking about the Mississippi River and how he started working on the levee, and how he caught the train, and uh, he jumped off the train and landed in a ditch. And, when he jumped off the train, a man was driving by on a wagon. And, he jumped out near the man and told the man he was looking for work. So, the man, I guess gave him a ride. [pause] Oh, the man gave him a ride, and asked him if he had any experience. He said, he said he had been picking cotton since he was four years old. But, the man told him it's much harder work than picking COTTON. So, he brought him [George] to the boss, who was the white man. When he brought him to the boss, who was the white man, the boss gave him a job. And, he told him he could be paid fifty cents, but he, fifty cents and three meals a day. But, the boss said that if he [George] would have had a mule, he could get three times more than that.
And, he gave him a place to stay that was in a cabin.

M: And, in which place is George now? Where is he?

Roxanne: On the levee

M: [overlapping] Where?

Roxanne: In Tennessee.

M: Tennessee. Okay.

S2: Uh, um. Then the man who George caught a ride with helped him to get his stuff straight, get a mule and all that. So, he picked a mule named Joe, um, and he was excited that, uh, for the first time, he had his own mule, and all that, and his own wagon. And, the only thing that he really OWNED was Pete's baseball.

M: How did he acquire this mule?

S2: You mean?

M: Did he pay for it?

S2: No, that came with the job. And, uh, he said they [workers] slept in cabins, and there were like four bunks. And, uh, all of the workers, they were colored, and the foreman, uh, he was white. And, then he [George] talked about how he worked and stuff like that. He talked about how he got used to working. And, they [novel] said on the end that at noon, that's when they blow the whistle, and that's when they go out to eat. And, that's about it.

Amy: George was explaining how good the meals were, uh, how the work was on the levee, and what they would do after they ate their meals, and how they would just sit by the fire and play music and talk all night. And, uh, he explained how Friday was payday. He couldn't read or he couldn't count. He never knew if he got his full check or not. And, he would just sign his name with an "X." That's how he his name because he didn't know how to read or write. And, his friend, Henry, came up to him and told him one of the guys, Jeremiah, got sick, took sick. So, he was on his death bed. So, he [Jeremiah], he was selling his mule. His mule's name was Samuel. George bought the mule, and worked with him for like a few weeks, and then the mule died on him. So, he went back to his old mule named, his name was Joe. He started working with Joe. Uh, the mule that he bought from Jeremiah was twenty dollars, but George didn't know how to count or anything, so he just gave him forty dollars, uh, so he [George] could help the man get a ticket to fly back home to see his family before he died.

M: So, do you really think that George gave him forty dollars because he couldn't COUNT? Or what do you think may have been the real reason?

S4: He Xxxxx Xxxxx to help the man.

M: Okay. He thought he was being a help.

S4: Yes

Amy: Yeah. [pause] He was explaining how stubborn the new mule was. He just started working with him.

S5: And, on pages 124 and 125, when they started on this page, George was talking how Samuel was not as fast as Joe. And, he [Samuel] was stubborn. George thought that he missed his master. So, he just bore with him. He just let him [pause] he took it easy on him. So, he felt kind of bad about working the mule since it was so old, Xxxxx Xxxxx Xxxxx, and he felt like the mule was aching and he was sore. So, one morning, when George woke up, and Xxxxx Xxxxx, he found out that the mule died in his sleep. So, instead of just leaving it like that – going to work – after two years on the job, he finally took a day off and buried the mule. And, he said Jeremiah would have been pleased with how he handled it. He gave the mule a proper burial. So, after that, George, uh, finally went back to work. He had to take a PAY CUT because he made more money with his OWN mule, but he was going to be out of more money because he had to use the company's mule. So, he went back [to work] to have money so he could get another mule. So, Joe wasn't there, Xxxxx Xxxxx. This other man – he wanted to sell HIS mule because he was going back with his family because he had saved up enough money But, it wasn't in him [George] to buy it.

M: In chapter twelve [pause], how does chapter twelve begin?

S6: It talks about them in Austin, Texas, about Texas completing more roads in a year than any other [state] in the nation. And, it [chapter] talks about the used car bargains. That was on page 126. On page 127, it talks about the, uh, Model T Ford that George saw in 1913. And, in 1923, when came back to Marshall, how his mother still liked the dress patterns and the little ones that Xxxxx Xxxxx. And, he worked in the fields like he had never left before. And, then

M: [overlapping] Xxxxx flashback. What does George see for the first time in 1914?

Gr.: An airplane, a car.

M: What does he see for the first time, [pause], the airplane or the car?

Gr.: A car

S6: And, he brought cotton into town, and he waited for the buyer. And, while he waited for the buyer, uh, a man pulled up in a Model T Ford and was talking to him. And, George knew, right then, that he wasn't from Marshall. And, uh, the man needed water for his car, and George helped him put water in his car. He offered George money, but George didn't accept it. George said "No."

S7: I have pages 128 and 129. This talks about George waiting for the man who needed water for his car to come back. When the man came back, he asked George if he wanted to test drive it. And, George told him "no," but he still insisted. So, when George got in the car, he didn't know how to shift the car, or whatever, to make it go, so the man was guiding him from the side. And, George happened to run into a tree. And, everybody was impressed by seeing him drive the car, even though it was his first time driving. And, George said he thought the man was going to be mad, but it was his fault because he told George to drive the car. When George got home, he told his family about it. Everybody was, like, happy and stuff because he was the first one to drive a car. His daddy never drove a car. And, the next day, while he was going back to town to sell some more stuff, he saw Johnny, and they were talking about baseball teams.

M: Have any of you driven a car without [pause] without having a license?

Gr.: [laughs] [chuckles] [some answer "Yes."]

S8: Xxxxx Xxxxx old there.

M: What is it?

S8: I say, "That's OLD there."

M: Old? [pause] How old were you when you drove a car without a license

S8: Fourteen.

M: Fourteen? [pause] S5?

S5: Fourteen

M: Any ladies?

S2: Xxxxx Xxxxx

M: Without a license?

S2: Yeah

M: You were kind of daring. Okay. Who's next?

Manny: On the beginning of page 130, Johnny was talking about how, you know, he could still pitch nine strong innings and extra innings if that's the way the game goes. Then it [novel] was talking about the catcher on their team was doing alright. But, you know, he [Johnny] was trying to talk George into coming back, being the catcher. Um, George was like, he misses baseball, but he shook his head, like, you know, he's alright for now. And, then, um, he was talking about, you know, like, they had too much work on the farm to do. So, he couldn't just leave work on the farm and go back playing baseball. He was like, uh, he'll work at the mill this summer, and, it was like, there were some Negro leagues opening up in Dallas. And it was like, he can't afford to play "Pro" ball right now, you know, because of the work on the farm and stuff. Um, and it was like, some of the players could play with any other TEAMS, but it was like, some of the White leagues were off limits to Blacks. So, they couldn't play in the leagues. Then Johnny was like, um, you know, George didn't need him anymore. It was like, that it made it easier [for George] to leave, but harder. That made it easier to leave, but it made it harder, too, because he wanted to leave, but then, he didn't want to leave because of his family and friends and stuff. On [page] 131, in this chapter, it talks about how the station master didn't pay notice [to George], but when George showed him some MONEY, [pause], it's funny how, you know, they'll try to sell them stuff. Um, [pause] and, he was like, He didn't know where he wanted to go, if he wanted to go to the North or go East. So, he was like, he was going to go North. He was like, some Whites were telling, um, were saying like, the Yankees up there – they didn't really like people from the South, you know. Like, the families were still fighting the War in their heads. They're talking about the Civil War. And, then it [chapter] was talking about, um the man was trying to talk to him like he was , uh, dumb [pause] because he told the man he wanted to go to Houston.

M: [overlapping] And, which man is this?

Manny: Um, the station master.

M: Okay.

Manny: So, he was like, he wanted to go to Houston, or beyond that, toward Brownsville. And, then the man was like, you know, trying to "play" him like he was dumb, like, "Yeah, Brownsville," [man smirks], like George didn't know what he was talking about or something. So, he was like, he was mad, but he didn't want to show it. So, he just kept it to himself.

M: Why do you think he didn't want to show it?

Manny: Because [pause] the man would probably, you know, he wasn't going to let him get on the train or something Xxxxx

M: Why?

Manny: Because maybe he, the station master, might think he was trying to start trouble or something.

M: Okay. Anything else you'd like to add?

Manny: No, that's it.

M: Okay.

S10: I have [pages] 132 and 133. On [page] 132, George was in Houston, on his way to Brownsville.

M: [overlapping] Where is Brownsville, [pause] which state?

UV: Texas

S10: So, he was saying, uh, in Houston they didn't have like [pause] electricity. So, when the night came, they had to use the light from the lanterns because they didn't have any electricity. He was, uh, saying that, uh, when he was getting some breakfast, a lot of people spoke Spanish. And, he said it didn't bother him because when he was working, he picked up the Spanish. And, it was like, uh, [pause] it didn't bother him or whatever. When he got down to Brownsville, he was saying, down in the Xxxx Xxxxx mountain or something, down in the Xxxxx, because the river was flowing through the middle of the town, so it was slow and muddy. Uh, the bridge was so busy that people were moving in both directions. And, he said it reminded him of Tex, Texar

M: [overlapping] Texarkana?

S10: yeah. And, um, as he was walking around Brownsville, people were selling vegetables, bread, jewelry, blankets and clothes. And, he was saying that he didn't want any of that.

But, he had rice and beans. And, uh, when he got to the bridge, he saw some people that tried to pass through, and he saw the policemen pulling a rifle. So, he didn't know what to do. He was thinking about causing a scene, but he didn't want to get into any trouble.

M: Did you come across any Spanish phrases?

S10: No, not

M: No, not on your part [of the chapter]?

S10: No.

M: Okay. Let's hear from the last group.

Charles: I have [pages] 134 and 135. George talks about his Spanish wasn't so too good, and that he felt safe asking the man to come out of the shop. And, he talks about how he had never been to the mountains. And, the only Spanish word he knew was, uh, "barto,' something like that. That means the "cheapest fare." And, he didn't know how to ask in Spanish, uh, which [train] car was for colored. So, uh, he just let the conductor take his ticket and show him where to go. And, uh, as he was sitting on the train, he saw a lot of Mexicans who were dark-skinned. But, he could tell they were Indian from the way they dressed.

M: Back up a little. Which phrases do we have in Spanish? Page 134. Anyone recognizes any of these phrases? Has anyone had Spanish?

UV: In high school.

M: Do you recognize any

UV: [overlapping] At the top of [page] 135

M: 134?

UV: 135

M: 135, 134, at the top, Thank you. [pause] Buenas tardes, senor.

UV: Good Afternoon, Good Evening.

M: [overlapping] Good Afternoon [pause] Good Evening [pause] "?Vivas usted aqui?" [pause] Here's your translation right in the parenthesis. What is it?!

Gr.: Xxxxx Xxxxx

M: [gives translation] "Don't you live here?" And, then he says, "No, senor, vivo en Texas. [pause] "I live in Texas." Any other Spanish terms that you know?! Anyone?

UV: "?Como usted esta?"

M: [rephrases] "?Como estas usted?"

UV: Yeah.

Gr.: [chuckles lightly]

M:..Which [the phrase] means what? Which means what?

Gr.: [silence]

M: What does "Como" mean?

UV: Um, "How"

M: "How"

UV: [translates phrase] "How are you doing?"

M: [repeats] "How are you doing?" And, if I wanted to say, "I'm doing well," what would I say?

Gr.: [several respond] "Como esta"…."Just bien"…. "Muy bien"

M: What is "Muchas Gracias"?

UV: "Thank You."

M: "Thank You." Any other phrases? [pause] "Hasta luego" [pause] "See you later, or, until later." "Hasta manana"?

Gr.: "See you tomorrow."

M: What if I said, "Tengo mucho hambre."

UV: [translates] [You are saying] you're hungry.

Gr.: [laughs]

S5: You said "hombre"?

M: [spells word] h-a-m-b-r-e

S5: I was thinking "hombre."

M: [spells word] Not "hombre" - but "hambre." Okay. [pause] Okay [pause] [gives another phrase] "?A donde vas?"

UV: "Where"

M: "?A donde vas?" [pause] [translates] "Where are you going?" [pause] Good, let's go on. [pause] If I said "It's eleven o'clock. – What do we say?

UV: "It's time to go!" [class ends at 10:50 a.m.]

Gr.: [laughs jovially, as does Moderator]

M: How do you say it in Spanish? [the phrase] "It's ten o'clock"?

UV: [translated utterances: "I don't know]

M: Find out for us, and tell us when we come on Wednesday – [the translation for] "What time is it?" – or – "

UV: [repeats] "What time it is?"

M: Yes, or – "It's ten o'clock a.m."

UV: Alright.

M: Okay. [pause] Who's next?

S12: I'm doing pages 136 and 137. And, George [pause] as he was getting off the train, he was looking at how the town were even poorer than, than Marshall was. And, he was, uh, unsure where he was going. So, he started walking with a group of people. And, Mexicans, they were very nice to George. He met a group of people on the train. So, they kind of told George to follow them, you know. And, they were very nice to him and everything. And, George met a man named, wait! – "Jorge" [uncertain of pronunciation of [the] name.

M: Jorge

S12: He met a man named Jorge, who was very nice to George. He treated him very good. And, George was very surprised, um, at that because he said no one had ever treated him good like that. And, um, so Jorge offered George some water, but George kind of refused it at first because he said that he didn't drink behind anyone. So, he saw where he had hurt the man's feelings. So, he thought about it, and he went on and took the offer from the man, a cup of water. And, he told him it [water] was good. He told him in Spanish that it was good.

M: Which other place does George talk about that is similar, as it relates to how he is treated in Mexico?

Gr.: Xxxx Xxxxx Xxxxx

M: [pause] You were just telling us how he was treated by the people here [Mexico]

Gr.: [multiple answers] "Good." … "Very nice."…."Fabulous."

M: Okay. Where was the OTHER place that someone told George about?

Gr.: [names several places]

M: [overlapping] The other place that seemed not to have any prejudice?

Gr.: [overlapping] Oh! Oh! Paris!

[End of excerpt]

Participants discussed their individual sections of the novel as assigned, demonstrating recall of basic facts as presented in their detailed summaries. Generally, participants elaborated on events, beyond basic knowledge, only when probed by teacher-researcher. Moreover, in response to probing questions, participants yet gave only minimal responses. As demonstrated in lines five through twelve of the transcript, I asked Roxanne [in several questions] to elaborate on the events surrounding George's travels to Tennessee. Roxanne gave several short responses only after I continued to probe during that verbal exchange. Subsequently, Roxanne did continue to discuss her segment of the chapter. Roxanne's presentation of her segment of the chapter was, by and large, typical of the focal participants and the other students.

Another example of a [teacher-researcher] probing question used to encourage students to engage in discussions of the novel appeared in lines sixty-five and sixty-six: "So, do you really think that George gave him [a man who had a mule for sale] forty dollars because George couldn't COUNT? Or, what do you think [might] have been the reason?" One participant did

answer that George really gave the man forty dollars because he [George] wanted to help the man to go back home to see a relative who was dying. Again, the class discussion was interspersed with a number of similar probes to engage students. However, for the most part, participants typically gave short answers. Evidenced by their very basic participation in class discussions, the majority of the students exhibited a passive learning style as noted in the literature review by Smith and Price (1996). The teacher-researcher continued to encourage participants to reflect on content of chapter [discussions] as they continued to submit their personal responses.

Qualitative Data: Interview Question Analysis

Eight focal participants were interviewed in the study to determine their perceptions of the impact of technology integration in their Developmental Reading Course. Interviews were conducted between the mid-point to three-quarter point of the semester. Interviews proceeded using the following general questions:

1. What are your feelings about using technology in this course?
2. What do you like about using computers in this course?
3. What is it that you do not like about using computers in this course?
4. Do you prefer to complete assignments using a computer, pen and paper, or a combination of both?
5. Do you have any comments about using computers in this course that you would like to share with me, other students, or other instructors about the use of computers in this course?
6. Is there anything that you would like to ask me about using technology in this course, or anything related to it?

Based on cross-case analyses of the interviews, six themes emerged: 1) participants perceived the advantages of using technology to enhance learning in, and beyond, their Developmental Reading Course; 2) participants perceived the difficulties/disadvantages regarding the use of technology in the course; 3) students expressed a gradual development or increase in competence and comfort with the use of technology through the course; 4) students expressed a general preference for use of computers rather than pen and paper in completion of course assignments; 5) students valued their technology experience enough to express a need for extending policy throughout the University; and 6) students expressed increased motivation regarding completing course using technology.

In Theme One, "Student Perceptions of the Advantages of Using Technology to Enhance Learning In, and Beyond, Their Developmental Reading Course," eight out of eight participants stated that using technology does enhance learning through various class assignments/activities.

As an example, one participant pointed to the use of an on-line "Yahoo" discussion group to post answers to [teacher-researcher] questions from Chapter One of the novel, Life is So Good. Amy stated, "By using the Internet…and emailing people, you can get ideas…from other people, like the questions on-line. And, like the stuff we overlooked while reading the chapters [from the novel], we'll see it in somebody else's question, and we'll [say], "Oh, I didn't see that." And, then we'll know [information] out of the book, so if it comes on the test, we'll know…this person had it on some of their questions, so we can use it."

In a subsequent assignment, participants were instructed to post two questions each from Chapters Six through Ten of the novel, and then post answers to two classmates' questions form those chapters. Four participants mentioned the use of software applications, including Powerpoint, Microsoft WORD, and email as having a positive impact on learning. Participants

created and orally presented an activity titled "Character Analysis," in which they were instructed to identify ten characters of their choice. One participant stated that the use of Powerpoint allowed her to go back over information previously presented, and add to her knowledge of the novel and its characters. Rita stated, "…Powerpoint, I have enjoyed it because you were able to go back and look through information that was given previously…and, even with the information that I may have had on each character, there may have been other persons [who] used the same characters. But, there was always something DIFFERENT that I may have had…that you could put together…and come up with many ideas of the different characters…and, it just broadened your knowledge of each character."

Another participant stated that she has used computer skills with Powerpoint learned in the Developmental Reading Course in one of her other courses. In that course, she created a Powerpoint presentation outlining descriptions of certain chemicals discussed in her Substance Abuse class. Melissa said, "And, I've been able to use it in certain classes…I had a presentation to do in my Substance Abuse class, and what I did for your class, I did the exact same thing we did for your class, the…Powerpoint…'Downers, Depressants.' I used Powerpoint to give just a brief outline, and I used most of the techniques that were given in your class…I was able to present it in the same format that you had taught us." A third participant stated that using computers in the course helped her with assignments and that she was learning something new, Powerpoint, Karen said "…another way to do presentations. I like that, so I don't always have to do it [presentation] on paper, or just paper." Participant also stated that she shared what she was learning in the course with her sisters…, such as, Powerpoint, Microsoft WORD, and email. Karen further stated, "As far as using technology, they [sisters] don't know too much about that. And, I want them to know. I encourage them to use computers…to come by and do different

things, learn how to type for one [thing]. A fourth participant indicated that, as a result of creating a Powerpoint presentation and viewing the presentations of other students, he was better able to understand the novel and its characters. Edward indicated, "It [Powerpoint presentations] makes you understand the lesson a little bit more…as we put it together I am able to understand more…facts from everybody else, including my own works." One participant stated that the combination of the regular class time with the computer lab time helped him to learn course content, as well as computer skills. Manny stated, "When you go to the lab, it's like you're getting the best of both worlds. So…you are in the classroom, then you go to the lab. So, you're getting familiar with the technology, but you're also going to be doing the [course content]…but, it's fun as you learn." He also stated that using the computer made it easier to edit his work, "…You can do your homework on it [computer]…it's easier if you mess up, you can delete." One participant stated that she could do a better job with computer-based assignments because of the option of having more time at home to complete assignments, when she felt refreshed. Roxanne stated "…I think it gives you more time to do your assignments, and then, if you don't do it at school…you can do it at home on your own time when…you feel refreshed…do the assignments."

Three participants stated that the advantages of using technology extended beyond the course. One participant stated that her development of computer skills, specifically Microsoft WORD, was preparing her for the job market. Manny indicated, "We have to get out here and find JOBS now and they're [job market] using computers. And a lot of what you taught…from Microsoft WORD…and, a lot of jobs ask that we have that experience. So, it's not only helping us here [in course]; it's helping us in the outside world." Another participant stated that computers are very important now and for the future. Charles said, "Computers are the future,

and more computers are going to be used for everything. So, you might as well start now. What about when you get older and have kids…They're going to have to know it. They're going to be in school with it [technology]. So, you're going to have to teach them that. And, if you don't KNOW it, well…who's going to teach them?'

In Theme Two, "Student Perceptions of the Disadvantages and/or Difficulties in Using Technology in Their Developmental Reading Course," six out of eight participants mentioned the difficulties/disadvantages regarding the use of technology in the course. Three participants stated that they experienced technical difficulties when attempting to complete assignments via email and the on-line discussion group. Participants indicated that they either could not access the on-line discussion group or could not send their personal responses via email. Charles asserted, "Sometimes computers don't act right all the time. They don't let you in certain, like the on-line discussion group, I couldn't get in sometimes…Technical difficulties…Sometimes…we would send our information through [email]…and for some people, it wouldn't go through, for some reason. And, [we] had to do it over." Two participants indicated the lack of access to computers apart from the University setting was a drawback. Manny said, "Sometimes it's hard to get access to a computer with the homework because…I don't have a computer at my house. So, it's hard to find a computer most times. One participant indicated that her lack of knowledge about computers was a drawback. Rita mentioned, "…I may have gotten a little agitated by the fact of not being so knowledgeable of them."

Regarding Theme Three, "Students Expressed a Gradual Development or Increase in Competence and Comfort with the Use of Technology through the Course," seven of eight participants stated positive results. Five participants indicated that they had broadened and enhanced their computer skill. Additionally, participants pointed to an increase in their general

knowledge of computers. Two participants stated that they felt more comfortable with using technology through the course. Charles said, "I think it [technology integration in course] gets you more familiar with using computers. So, I'm getting that knowledge using computers…It just develops you more, using the computer…It makes you well-rounded." Roxanne mentioned "…I think it's very helpful…to me, and helps me to be more familiar with the computer…because I don't really use the computer often." One participant indicated that she was especially comfortable using Powerpoint, as she might need it in the future. Amy stated "…In the future, you might have to do a Powerpoint presentation. And, this will help you learn how to do it. Manny said, "It's just enhanced our skills, especially like some people that have problems typing, like me. So, my typing speed is faster now than before. Now, I'm efficient on the computer." Edward said, "I think it will help [us] out a little better to use the technology, as well as the regular class because you're learning a little bit as you go on because…technology is one of the main things taking over…and it would be a help beyond just the course itself." Manny said, "I enjoy using the technology in this course because it helps me to advance my skills on the computer." One participant stated that even though she made many mistakes while completing the various computer-based assignments, she still felt comfortable using the computers because the experiences increased her knowledge about computers. Rita said, "…I have two [computers] at home, as a matter of fact, TWO, but I'm not really used to fooling with the computer a lot. [And now] I've really gotten the feel of it, and hey…felt like I was doing a BIG thing with it, and I really feel comfortable with it. I've made a lot of mistakes, but I still have felt comfortable because even making the mistakes, it helps you to…know [the computer] a little better."

In Theme Four, "Students Expressed a General Preference for Use of Computers Rather Than Pen and Paper in Completion of Course Assignments," six participants indicated a

preference for using computers in completing course assignments. Participants cited a number of reasons for their preference. One reason was the ease of editing work with the spell check and grammar check features of word processing applications. Amy reported, "…Most people enjoy working on computers than writing…because…if I mess up, I ball up the paper and start all over again. And, if you do it on a computer, you can just delete it, and start writing again…It helps, and it saves time." Charles indicated, "It [computer] has spell check and it helps with spelling and grammar." Another reason for participants' preference for computers was that it provided motivation to complete assignments while on the computer for other reasons. Amy said, "…Most of the time, if you're on the Internet, [you will say], 'Oh, I have work to do for this class.' You can have it typed while you're on the Internet. [And], if you're out and about and you don't have pen and paper with you, you can't write it [assignment] down because you don't have pen and paper with you. So, you can use the Internet…I'd [prefer to] use the computer. It always lets you know your corrections, and you [will] know what to do." One participant indicated that using the computer for assignments made it easier and faster to complete assignments. Edward said, "I like doing the assignments on computer because it makes it a lot easier. [For example], Powerpoint…We've done our reflections on our novel chapters [using email]. That made it a lot easier because we didn't have to write, basically. And, it makes it a lot faster." One participant indicated that using the computer made it less strenuous on the hands and made studying easier. Manny stated, "I like the fact that it is less strenuous on my hands…And, I'm able to save it [work] on disks, where I can look back at it, on it…and use it, probably in my later courses." Two participants indicated a preference for use of both computer and pen and paper, depending on the particular assignment. Karen said, "Some things I'd rather do on a computer, and some things I'd rather write down. [For example], for an assignment like the Character Analysis, it was

better to use the Powerpoint presentation. [For] testing, you can write that down and you can always go back…I've never taken a test on a computer before. So, pen and paper is the only way I know how to take a test." The second participant preferred to use computers [Powerpoint] for the Character Analysis assignment, but preferred to use pen and paper for submitting personal reflections on the novel. Rita said, "It depends on what I'm doing. As far as the novel we're reading…I feel that pen and paper is better. But, the actual Character Analysis…I just feel that the computer setting is better for something like that…because just actually seeing something in front of you may help you retain what you see."

Regarding Theme Five, "Students Valued Their Technology Experience Enough to Express a Need for Extending Policy throughout the University," four of eight participants agree that the University should create policies to ensure use of technology across curricula. Two participants stated that ALL instructors should use technology for at least one or two of their [course] assignments. Rita added, "I think all instructors should do at least something, an assignment on the computer." Rita also commented, "…I really think that it's a good idea for the instructors to implement that [technology] within their class time for the students because it helps. I think it's just helpful for…students to have both the actual classroom time and the lab time associated together…because it takes the boredom out of the everyday class setting…and being in the lab, you can work at your own pace with the course content and the technology." Two participants suggested that the University offer non-credit classes, with nominal fees, for instruction in a variety of software applications, including, but not limited to, Powerpoint, Microsoft WORD, and Blackboard. Amy said, "If you miss school…you can go on it [Blackboard], and you can get the information [for course assignments]. Moreover, the [University] can have a class that teaches people, but it shouldn't be a required class that you

have to pay for with tuition. It should be a class set aside [non-credit course] where [personnel] can teach those courses because you might not really need it…but you would like to learn, such as, Powerpoint, Blackboard, word processing." One participant stated that she hoped that the administrators of the University would consider use of technology in regular courses. Rita mentioned, "It would be a good idea for the …Dean of the Department to really look at the program and to implement both [class time and computer lab time] together. I think that it will be good for them, the University, the Dean, the instructors to implement using computers within this course because it is a good objective."

In Theme Six, "Students Expressed Increased Motivation Regarding Completing Course Assignments Using Technology," four of eight participants stated that using computers motivated them to complete course assignments. One participant stated that being around a computer made her think about doing her [computer-based] homework for the course. Participant noted that when using the computer, she didn't have to use a lot of paper. Amy stated "…By you being around a computer, you're going to think about doing your homework…But, if you're not [around a computer], you'll say, 'Okay, I don't feel like getting all this stuff together…And, when you're sitting around a computer, you're normally comfortable anyway, so you have to type…And, you don't need a lot of paper all on this side and all over, going through a book and stuff. You just need one book [novel], and you do your homework [using the computer]." One participant said the fact that he did not have a computer at home eliminated his procrastination in completing computer-based assignments, thus compelling him to complete assignments while at school. Manny indicated, "Well, if we were writing something down in class, I'd say, 'Oh, I can do this assignment later. But, with me, I don't have a computer, so I couldn't just go home and do this assignment. I'd have to do it RIGHT NOW. So, it's on my mind to do it while I'm at

school. So, I hurry up and do this assignment, and it's done!...But, if you said it's a paper and pen assignment or something I had to write on a piece of paper, I'd put it off and put it off. I'd procrastinate for while [because I have it] in my head that I can write it up…the day before, or something like that."

Two participants indicated that using computers in the course was not as boring [one participant defined boring as 'not interested, not paying attention in class. Rita said, "I think it's better to use technology along with the course, rather than just sitting at a desk all the time. I think it's just better [to use computers] every now and then…It won't be as boring to me…that has an effect on me…It's something to look forward to. It's something different…It's not the same old thing day after day."

As the six themes came to light, there were two meta-themes that emerged as invisible threads based on a re-analysis of the data. The two themes that emerged were: 1) students' use of technology motivated them to perform in ways that they never had before; and 2) students' recursive use of technology facilitated engagement. Both themes will be discussed in Chapter Six.

This chapter discussed the six themes that emerged from cross-case analyses of interviews vis-à-vis data streams. Various data streams were evident: participants used email to submit personal responses to chapters in the novel; participants answered teacher-researcher-generated and student-generated questions from the novel, posted to a Yahoo discussion group; and participants created a character analysis document using Powerpoint. In addition, this chapter highlighted participants' feedback comments on the four computer-based, content-driven assignments. The themes were: 1) participants perceived the advantages of using technology to enhance learning in, and beyond, their Developmental Reading Course; 2) participants perceived

the difficulties/disadvantages regarding the use of technology in the course; 3) students expressed a gradual development or increase in competence and comfort with the use of technology through the course; 4) students expressed a general preference for use of computers rather than pen and paper in completion of course assignments; 5) students valued their technology experience enough to express a need for extending policy throughout the University; and 6) students expressed increased motivation regarding completing course assignments using technology.

Hence, according to participants and their experiences during the Developmental Reading Course, when students engaged in computer-based, content-driven activities in which they were afforded numerous opportunities to read, discuss, reflect on, create, share and present course content using technology, students reported that they developed and enhanced those characteristics associated with an active learning style. Reviewing the literature of the present study, Messick (1984) asserted that students who exhibit an active learning style are: 1) self-motivated and directed for learning for the sake of learning; 2) responsible for their own successes and/or failures; 3) focused in their attention to the task and not easily distracted; and 4) tolerant of new ideas and unusual approaches.

The next chapter will describe two meta-themes that emerged as invisible threads, based on a re-analysis of the data. The next chapter also will discuss the meta-themes in light of the literature that addressed the characteristics of under-prepared [college] students in the present study. Finally, the next chapter will discuss the conclusions, findings, implications for teaching and practice, and recommendations for future research.

CHAPTER SIX

DISCUSSION AND CONCLUSION

Chapter Five provided a detailed discussion of the four major computer-based, content-driven activities in which eight focal participants and the other students engaged during the course of the study. Also included was an excerpt from an audio-taped session of a class discussion based on a selected segment of the novel. A discussion of participants' perceptions of the impact of technology integration within course content was presented. In addition, Chapter Five provided a discussion of six overall themes that emerged from the data streams.

This chapter includes a discussion regarding the two meta-themes that were revealed as participants interacted with, and talked about, their use of technology in their Developmental Reading Course. Moreover, this chapter includes a discussion of the meta-themes as they seemed to emerge as invisible threads as students interacted with course assignments. These themes are discussed in light of the literature that addressed the characteristics of under-prepared [college] students. This chapter also includes a discussion of the findings, conclusions, implications for practice, and recommendations for future research.

The first meta-theme that emerged was that "Technology motivated students to perform in ways that they never had before. Manny stated, "This is my first time using Powerpoint. I just have to see the final result." Although Edward said that he was somewhat familiar with computers prior to his enrollment in the Developmental Reading Course, he indicated that he had not used Powerpoint for a class assignment, and that he wanted to explore it [Powerpoint] a little

bit more, adding different effects – sound and animation. Edward said, "I am very interested [in Powerpoint] because some of the things I didn't have until I was in high school…and, I wanted to…explore a little bit more…the activities that we do on the computer…that has been good…basically just putting the effects on your work, and putting everything together to see how it turns out…It makes you understand the lesson a little bit more." Edward also stated, "I like doing the assignments on the computer because it makes it a lot easier…Powerpoint…we've done our reflections on our novel chapters [using email]…that made it a lot easier…because we didn't have to write!...and, it makes it a lot faster." Edward admitted that it was his fault that he did not read all sections of the novel according to the schedule at times. However, Edward's self-reported "interest" in exploring the use of technology in completing a particular assignment demonstrated a certain degree of motivation to complete the work. Amy said, "…by you being around a computer, you're going to think about doing your homework." Charles said, "…Just using the email, the Internet. I just didn't really have a purpose for it until this class started – emailing our responses [on the novel]. I never used the computer [before]. More evidence that participants perceived the use of technology as a tool to motivate them to actively engage in computer-based assignments were noted. Roxanne commented, "I think it's better to use technology along with it [course], rather than just sitting at a desk all the time…it won't be boring to me…it's something to look forward to." Amy asserted, "You're using the computer, and…we didn't do this in high school, and I'm going to try this…So, you find yourself learning while you're having fun…Most people enjoy working on computers than writing…because if I mess up, I ball up paper and start all over again. And, if you do it on a computer, you can just delete it, and start writing again…It helps, and it saves time." Manny indicated that, "It's fun as you learn. You can do your homework on it [computer]…it's easier if you mess up, you can

delete." Karen indicated, "I think that [using computers] was better than writing…because I like to work on computers…For an assignment like the Character Analysis…I thought it came out better when we did it in the Powerpoint presentation." Melissa said that she not only used Powerpoint in the Developmental Reading Class, but also that she used Powerpoint in one of her other classes, having developed that knowledge of Powerpoint in the Developmental Reading Course. Finally, Rita acknowledged that she had TWO computers at home; however, it was not until she took the Developmental Reading Course that she actually used technology. Rita also indicated that she had become more comfortable using computers during the course: "It's just been a comfortable feeling of working on the computer, and just learning, as I go, how to actually operate it…It has been a gain for me to actually be on it [computer].

The invisible thread of "technology as a motivational tool" was evident in participants' comments. Participants were motivated to do things they had never, or rarely, done. During the course of the study, participants tended to write more, particularly in their personal responses. Most participants wrote lengthy summaries. And, the fact that participants wrote lengthy summaries was ironic. Needless to say, when one constructs "emails," one "writes." The use of email seemed to dispel the participants' perceived "stigma" of "writing." Moreover, students tended to edit their work more readily. The invisible thread of "use of technology as a motivational tool" is supported by the literature. Many studies showed that using computers in the classroom added excitement and increased motivation for learning (Gulliver, Randall & Polk, 1998; Hakkarainen, Lipponen, Jarvela & Niemivirta, 1999). Moreover, Geisert and Futrell (2000) noted that when students used word processors, they tended to write more, revise more, and developed a better attitude toward the writing process. Bender and Bender (1996) also attested to the advantage of using word processing with under-prepared students as a tool to

motivate them to "write." Word processing software can reduce the physical requirements of writing. Moreover, with word processing, students spend more time on composing rather than on the actual mechanics of writing. The authors also stated, "This is certainly an advantage for 'slower-to-write' at risk students or students who may strongly fear the writing process."

The second meta-theme that emerged was that "Technology engaged students through computer-based assignments to the extent that participants exhibited an active learning style." Participants reported that the use of technology in the course increased their resolve to complete course assignments. Participants also reported a certain degree of eagerness to complete assignments using technology. Manny indicated that he liked to use the computer because of spell check and other features associated with computers: "You can use spell check and grammar check, so it's better…Easier because you don't have to go over it with "white out"…And, it's [your work] always neat. Karen said that using computers for assignments was sometimes better than writing because she liked to work on computers. She asserted, "If it involves typing, I already know how to type. So, that's a "plus" for me. As evidenced by their comments, participants reported a high degree of engagement in completing course assignments.

As a teacher-researcher, I attempted to design the curriculum and learning environment in my Developmental Reading Course in such a way that would address the basic academic needs of students who many times exhibit a passive learning style, a style based on identified characteristics associated with passive learners, as discussed in the literature review of the present study. It was my intention that students, in a computer-based, content-driven environment, would have numerous opportunities to actively engage in class discussions, to reflect on and write about the content of the novel and their personal responses to the novel, all within the context of using technology. I maintained that there would be concrete evidence that

participants would exhibit characteristics associated with an active learning style through the use of technology within course content.

Analytic Question

In a college Developmental Reading Course where the teacher-researcher structured the curriculum and learning climate of the Developmental Reading Course to allow students to engage in various computer-based, content-driven assignments, what observable evidence of active learning style characteristics would be noted in focal students as a result of their participation in those activities throughout the duration of the study?

Organization of Chapter

The major findings of this study resulted from an examination of all the data streams for the focal participants in the study. The findings focused on two areas: 1) the influence of computer use on students' motivation to write and revise more in completions of assignments; and, 2) the use of technology as a motivational tool to engage passive learners. This chapter is organized around these two areas.

Findings and Conclusions of the Study

On Examination of Data Streams of Focal Students

The discussion of the findings and conclusions that resulted from an examination of the data for students in the study, and in particular, the focal students in the study, include two major areas of contribution to the field of research regarding the impact of technology integration in college developmental [reading] courses. The areas wherein the current study makes significant contributions are: 1) the influence of computer use on students' motivation to "write," edit, revise, and "re-write;" and, 2) the identification of computer-based activities as motivational

tools for passive learners that emerged from the data and which may prove useful to educators and researchers.

The most outstanding finding that I observed was that focal participants reported a willingness to "write" [email, post to Yahoo discussion group, create a Powerpoint presentation]. The idea could seem ironic: for, to email is to "write;" to post comments to the discussion group is to "write;" and, to create a Powerpoint presentation is to "write." However, using the computer as a platform for "writing" seemed to dispel the "stigma" of "writing" as perceived by [some] under-prepared students. Edward commented, "Using Powerpoint and the Yahoo discussion group was good because "we didn't have to write, basically." Roxanne, who "wrote" lengthy personal responses via email said, "I'd rather use the computer because every once in a while, you get tired of using pen and paper work (writing)." Yet, most of Roxanne's personal responses were lengthy. Regarding "writing," Amy said, "…your hands start hurting after a while, and you're balling up paper." Charles said, " Really, I have a bad handwriting anyway." Manny indicated that using a computer to "write" was less intimidating for him in submitting assignments in general. Manny said, "I like to use the computer because of spell check because when you're writing, and you turn your paper in…you say [Manny says to himself] 'WHAT IS THIS?!' So, you use the spell check [when using a computer] …so, it's [work] is better." Many commented that in other classes when his work was handwritten, his work would always come back to him with multiple corrections, "with red marks splattered over my work." Referring to the use of Powerpoint, Karen said, "This [Powerpoint] is another way for me to do presentations. I like that, so I always don't have to do it on paper. I can do it with Powerpoint."

As evidenced in participants' comments, they are more apt to write, edit, revise, and re-write, when using the computer. This finding confirms those of previous studies, for example,

MacArthur (1994), that says that word-processing software is a useful tool that will motivate many students. Student use of word-processing applications can also allow for ease of creation and revision of work. This finding also supports Heide and Henderson's (2001) suggestion that email is the "hook" that gets many people started using computers. In the academic arena, the authors suggest that students and teachers can use email to ask and answer questions about assignments; students can collaborate with peers; and, teachers can give feedback to students. Finally, the finding of the present study confirms still more of the previous studies, for example, (Hentrel & Harper, 1985; Enghagen, 1997; Kozma & Johnson, 1991) that contend that integrating technology in instructional activities has the potential to positively impact under-prepared students' confidence in their academic ability.

When students worked on course assignments requiring the use of technology, virtually all students, as did the focal participants, worked intensely on the assignments. This was especially evident during the whole class lab sessions. Whether the particular lab session involved students emailing their personal responses, creating their Character Analysis using Powerpoint, or posting questions and answers to the Yahoo discussion group, students remained focused and highly engaged. Some students, one of whom was Edward [who rarely engaged in regular classroom activities], seemed to "come alive" when working in the computer lab. In one of the whole class, computer lab sessions when students were working on their Character Analysis document using Powerpoint, I announced that our class time had ended and that they were free to leave. Edward asked if he could remain to continue to work on his project. As the next hour was a standard "open" time for the lab, I happily replied "Yes." I, then, noticed that other students remained as well. I asked if they another class following our class. To those who answered "Yes," I encouraged them to honor their commitment to their next class. And, though

reluctantly so, those students left. Edward did remain, and in fact, he completed his Character Analysis during his extended stay.

Influences on Teacher-Researcher

This study influenced the teacher-researcher as a teacher and as a researcher, from which the teacher-researcher learned about both roles from the process of conducting the teacher-researcher study. The impact was evidenced by the identification of influences exhibited in the practice of the teacher-researcher in the present study. Moreover, the teacher-researcher suggested the importance of developing other educators who teach [college] developmental courses, and courses in general, who envision the use of technology within course content as a vehicle through which they can engage students actively in their learning, and thus provide opportunities for optimal student learning.

Influences Exhibited in Practice of the Teacher-Researcher

Engaging in this study caused me, as a teacher-researcher, to reflect upon factors in my personal and professional life which have influenced my decisions regarding learning theories and beliefs I have embodied, instructional techniques I have employed, as well as the curriculum and course activities I have selected. The same is true of many researchers who engage in qualitative research. According to Kincheloe (1991), “Some of the important aspects of qualitative research are a concern with context, a holistic view of a naturalistic setting, and a careful examination of the many interactions and outlooks of those included in that setting.” Creswell (1994) and Williams-Smith (1996) asserted that it is crucial that the teacher-researcher acquire an intimate knowledge of the learners, within the context of the study, for the only reality is that constructed by the individuals involved in the research situation.

It was interesting that one of the major influences on my present approach to teaching has been the era of the technology explosion. Although the world has witnessed technological advances across the years, technological advances in recent years seem to have reached a pinnacle. As a result, technology has impacted all segments of society, including the field of education. The factors that were most prevalent regarding my philosophy regarding the use of technology in my teaching were:

1) Learners' extensive use of technology in their daily lives;
2) The teacher-researcher's need to become knowledgeable;
3) The teacher-researcher's use of technology as a motivational tool in the attempt to mediate those passive learning styles exhibited by [some] under-prepared college students; and
4) The teacher-researcher's belief that regardless of the academic level, K – University, learning **can be** interesting, fascinating, and yes, FUN!

These factors that I have identified as significant, relative to my philosophy of education, were consistent with current research on the potential of effective use of technology to engage students and to develop lifelong, active and independent learners.

Need for More Technology Integration in Courses

In light of the ever-increasing proliferation of technology in the world, there is a need for more "teachers of developmental [reading] courses to integrate technology within their course content as a possible motivational tool for the under-prepared, yet [often times] **,** technology-savvy [college] students. The literature of the present study suggested that [student-centered] use of technology in K-12 classrooms is evident. However, the literature suggested that student-

centered use of technology was less evident in higher education, and virtually non-existent in college developmental courses. A number of researchers suggested that, for the most part, many faculty members in higher education acknowledge the importance of using technology, but there is limited use of student-centered technology, for any number of reasons, including, but not limited to: the amount of time and effort required to implement technology in instructional activities; the need for training; administrative support; and, the availability of resources to fund technology issues. (Garland, 2000; Spotts & Bowman, 1995; Ely, 1989). The literature and conversations with the focal students of the present study pointed to the many advantages of technology integration in [developmental] courses.

However, there was an old promised that said, "There's a pot of gold at the end of the rainbow." The literature in the present study indicated that there are indeed more faculty in higher education who use more student-centered technology in the classroom, and who have "passed it on" to other faculty in higher education. The literature in this present work pointed to several studies (Speaker, Dermody, Knighten, Suzuki, Wan & Parigi, 2001; Wang & Speaker, 2002) that suggested an increase in student-centered technology use in instructional activities in higher education. In their study, Speaker and Wang (2002) examined the beliefs and practices of education faculty in higher education. The major finding of the study indicated that technology integration in instructional activities impacts both teachers and learners. After engaging in a year-long training project regarding the integration of technology in instructional activities, participants reported that they assessed and/or re-assessed their ways of teaching and learning.

The current study indicated that there is a compelling need for college faculty in general, and college faculty who teach developmental courses in particular, to seize opportunities to explore, share, and act on research as well as effective practices in technology integration in

instructional activities. The NOCTIITE project (New Orleans Consortium for Technology Integration in Teacher Education), sponsored by several local universities, was one such opportunity that has had far-reaching positive results as it relates to assisting educators in the implementation of student-centered technology use in the classroom.

As it is one thing to "seize" opportunities to learn how to integrate technology effectively in instructional activities, there are indications that universities must **"provide"** ample opportunities for professional development for faculty in the area of integrating technology in instructional activities.

According to a number of researchers (Norton & Sprague, 2001; Masalski, 1999; Keith & Glover, 1987; Geisert & Futrell, 2000; Roblyer, Edwards & Havriluk, 1997; Colis, 1998), the use of computers in the classroom, as a tool, can enhance student learning, help build students' confidence, and heighten students' active participation in classroom activities. The use of technology in a college developmental reading class can indeed afford under-prepared college students the opportunity to demonstrate their understanding of course content and familiarity with technology, using various software applications and computer peripherals.

Implications for Future Research

The present study focused on under-prepared college students' perceptions of the impact of technology integration in a Developmental Reading Course. Considering future research, it would be interesting to investigate the impact of technology integration in college developmental courses [English, Reading, and Mathematics] on student retention.

Since this study focused on students in a Developmental Reading Course, it would be interesting to repeat the study in a Developmental Math Course and a Developmental English

Course. This would provide an insightful comparison of how students in other college developmental courses react to the integration of technology within those courses.

Another consideration for future study could take into account the demographic background of participants. The participants in this study were all African-American students. It would be interesting to repeat the study in an environment rich with diversity.

Considering further research, it would be interesting to investigate the perceptions of faculty who use technology in their developmental courses. Regarding this topic, several questions arise. Do they design instructional activities that require their students to use technology? Do they use various technologies in their teaching?

The most important factor regarding teaching and learning, even as technology integration in instructional activities is considered, is the teacher in the classroom. As I often have heard the saying, "Teaching is causing one to know," I have remained mindful that technology is only a tool that, if used effectively, can facilitate learning. As a result, the field of education could benefit immensely from a study that investigates if instructors in their use of technology in instructional activities assist students in developing higher-order thinking skills. I contend that the use of technology is one motivational tool that can be used to garner the attention of [some] passive students. It would be interesting to determine if however, once instructors would gain the attention of those [sometimes] passive learners through the use of technology, they [instructors] use that technology to "cause students to learn [think] in more critical ways, rather than allowing [or requiring] students to use technology simply because it is fun.

Implications for Future Practice

This study showed that technology integration in a college Developmental Reading Course had a positive impact on student engagement as it related to under-prepared college students. When engaged in computer-based, content-driven course assignments, students adopted behaviors that were characteristic of active learners. This study showed that effective use of computer hardware and software could serve as motivational tools for [some] under-prepared students, the end result – optimal student learning.

Moreover, this study suggested the need for moving beyond literal to more interpretive stances in teaching and learning and for getting learners to elaborate and go more into depth on discussion and writing. This study also suggested the possibility of refining [student] motivation through using selected technologies. Finally, this study suggested the need for improving work with reluctant readers and writers.

Conclusions

In summary, the results of this study were that students actively and eagerly engaged in the four major computer-based, content-driven, course assignments. The focal students and the other students did not produce perfect products at all times; however, at virtually all times, students put forth great effort. The concept of effort links back to the literature that indicated a lack of [student] effort as one of the characteristics of [some] under-prepared college students. To some degree, this study showed that this characteristic, and others similar to it, could be mediated. Despite the challenges that many under-prepared college students may have faced in their K-12 experience, higher education professors who meet these students in their developmental courses just may **be** the difference in a student's will to reach for higher heights.

Moreover, “when you see the spark in a student’s eyes, you know that you have made a difference in that student’s life. And, if by chance, you do not see the immediate fruits of your labor, would you not experience gratification if somewhere down life’s highway, a [former] student came to you and said, ‘Thank You. I made it.’ And, if you do not have the experience of students returning to say ‘Thank You,’ you will know in your heart, as I know in mine, that, as educators, the best has been given.” Throughout my “calling” as an educator, I share what I have received from so many persons before me. And, I hold fast to [and, daily live] the saying, “To whom much is given; much is required.”

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Appendix A

Human Subjects Approval

UNIVERSITY OF NEW ORLEANS
COMMITTEE ON THE USE OF HUMAN SUBJECTS

Form Number: 4AUG02 ***(please refer to this number in all future correspondence concerning this protocol)***

Principal Investigator: Deborah Darby **Title:** Graduate Student

Department: Curriculum and Instruction **College:** Education

Name of Faculty Supervisor: April Whatley, Ph.D. ***(if PI is a student)***

Project Title: Technology integration: Benefits for under-prepared college students

Date Reviewed: July 15, 2002

Dates of Proposed Project Period: From 7/02 **to** 7/03*
***approval is for one year from approval date only and may be renewed yearly.**

Note: Consent forms and related materials are to be kept by the PI for a period of three years following the completion of the study.

☐ **Full Committee Approval**
☒ **Expedited Approval**
☐ **Continuation**
☐ **Rejected**
☐ **The protocol will be approved following receipt of satisfactory response(s) to the following question(s) within 15 days:**

Committee Signatures:

Matthew S. Stanford, Ph.D. (Chair)

Scott Bauer, Ph.D.

Gary Granata, Ph.D.

Betty Lo, M.D.

Hae-Seong Park, Ph.D.

Jane Prudhomme

Jayaraman Rao, M.D. (NBDL protocols only)

Richard B. Speaker, Ph.D.

Gary Talarchek, Ph.D.

Appendix B

Consent Form

CONSENT FORM

1. **Title of Research Study**
   Under-prepared College Students' Perceptions of the Impact of Technology Integration in a Developmental Reading Course

2. **Project Director**
   Deborah W. Darby (504) 280-6605 Dr. Richard B. Speaker (504) 280-6534

3. **Purpose of the Research**
   The purpose of this research is to investigate the perceptions of under-prepared college students regarding the impact of technology integration in a developmental reading course.

4. **Procedures for this Research**
   Students will complete a pre- survey to determine their attitudes toward computer use. The students will complete course assignments using computers. Semi-structured interviews focusing on anecdotal responses and reactions to the integration of technology within course content will be conducted with selected focal students.

5. **Potential Risks of Discomfort**
   There are no potential risks for the students, and they should experience no major discomfort as a result of this study. The students may experience fatigue while completing the survey. Should this occur, students will be allowed to take a break. If you wish to discuss these or any other discomforts you may experience, you may call the Project Director listed in #2 of this form.

6. **Potential Benefits to You or Others**
   This study highlights students' perceptions of the impact of technology integration within the course content of a college developmental reading course. This study can inform practice of both educators who teach developmental college courses and those who teach non-developmental college courses.

7. **Alternative Procedures**
   Completing the survey and participating in interviews are completely voluntary. Your participation is entirely voluntary and you may withdraw consent and terminate participation at any time without consequence.

8. **Protection of Confidentiality**
   At no time will students' names be recorded, or associated with survey materials, or interview questions. This assures that the maximum level of confidentiality will be maintained.

I have been fully informed of the above-described procedure with its possible benefits and risks and I have given permission of participation of this study.

_____	_____	_____
Signature of Subject	**Name of Subject (Print)**	**Date**
_____	_____	_____
Signature of Person Obtaining Consent	**Person Obtaining Consent (Print)**	**Date**

Appendix C
Baseline Survey

Pre-Survey ID Number _____

Please read each statement carefully. Circle the number that most correctly corresponds with your agreement or disagreement with each statement below.

Strongly Agree	Agree	Slightly Agree	Undecided	Slightly Disagree	Disagree	Strongly Disagree
1	2	3	4	5	6	7

1.	I would prefer to type a paper on a word processor than on a typewriter.	1	2	3	4	5	6	7
2.	Whenever I use something that is computerized, I Am afraid I will break it	1	2	3	4	5	6	7
3.	I like to keep up with technological advances	1	2	3	4	5	6	7
4.	I know that I will not understand computers	1	2	3	4	5	6	7
5.	Using a computer is too time consuming.	1	2	3	4	5	6	7
6.	I feel that having a computer at work would help Me with my job	1	2	3	4	5	6	7
7.	I prefer not to learn how to use a computer.	1	2	3	4	5	6	7
8.	I would like to own, or I do own a computer.	1	2	3	4	5	6	7
9.	I like to play video games.	1	2	3	4	5	6	7
10.	I feel that the use of computers in school will help Children to learn mathematics.	1	2	3	4	5	6	7
11.	I prefer to use an automatic-teller for most of my Banking.	1	2	3	4	5	6	7
12.	If I had children, I would not buy them Computerized toys.	1	2	3	4	5	6	7
13.	I have had bad experiences with computers.	1	2	3	4	5	6	7
14.	I would prefer to order items in a store through A computer than wait for a store clerk.	1	2	3	4	5	6	7
15.	I feel that the use of computers in schools will Negatively affect children's reading and writing Abilities.	1	2	3	4	5	6	7
16.	I do not like using computers because I cannot See how the work is being done.	1	2	3	4	5	6	7

17. I would prefer to go to a store that uses Computerized price-scanners than go where The clerks enter each price into the cash register.	1	2	3	4	5	6	7
18. I do not feel I have control over what I do when I use a computer.	1	2	3	4	5	6	7
19. I think that computers and other technological Advances have helped to improve our lives.	1	2	3	4	5	6	7
20. I do not like to program computerized items Such as VCR's and microwaves.	1	2	3	4	5	6	7

Comments:

Appendix D

Interview Questions

Interview Questions

1. What are your feelings about using technology in this course?

2. What do you like about using computers in this course?

3. What is it that you do not like about using computers in this course?

4. Do you prefer to complete assignments using a computer, pen and paper, or a combination of both?

5. Do you have any comments about using computers in this course that you would like to share with me, other students, or other instructors about the use of computers in this course?

6. Is there anything that you would like to ask me about using technology in this course or anything related to it?

VITA

Deborah W. Darby graduated from the University of New Orleans with a Bachelor of Arts in French. She received a Master of Education degree in Curriculum from the University of New Orleans.

Deborah currently serves as Assistant Professor at Southern University at New Orleans as Reading Coordinator. Prior to this position, she taught in the Communication Division at Delgado Community College. At Delgado she served as Reading Coordinator for the Division and Co-Principal Investigator for an 8G Grant which funded the implementation of a Reading Computer Classroom and the enhancement of a computer-assisted Reading Laboratory.

Deborah holds membership in the professional honors organization Phi Delta Kappa.